Home Laundry Dryers

"AE", "AG", "NE" and "NG" Models

Refer to Page 6 for Model Numbers

Service

Alliance Laundry Systems

www.comlaundry.com

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Model NE4713 and NE4613
Through Serial No. S6242593XD 113
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Section 1
Safety Information

Throughout this manual and on machine decals, you will find precautionary statements ("CAUTION," "WARNING," and "DANGER") followed by specific instructions. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

⚠ DANGER

Danger indicates the presence of a hazard that **will** cause **severe** personal injury, death, or substantial property damage if the danger is ignored.

⚠ WARNING

Warning indicates the presence of a hazard that **can** cause **severe** personal injury, death, or substantial property damage if the warning is ignored.

⚠ CAUTION

Caution indicates the presence of a hazard that **will** or **can** cause **minor** personal injury or property damage if the caution is ignored.

Additional precautionary statements ("IMPORTANT" and "NOTE") are followed by specific instructions.

IMPORTANT

The word "IMPORTANT" is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

NOTE

The word "NOTE" is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

In the interest of safety, some general precautions relating to the operation of this machine follow.

⚠ WARNING

- **Failure to install, maintain and/or operate this product according to the manufacturer's instructions may result in conditions which can produce serious injury, death and/or property damage.**
- **Do not repair or replace any part of the product or attempt any servicing unless specifically recommended or published in this Service Manual and that you understand and have the skills to carry out.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the product is properly grounded and to reduce the risk of fire, electric shock, serious injury or death.**

W006R1

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

WARNING

Repairs that are made to your products by unqualified persons can result in hazards due to improper assembly or adjustments subjecting you, or the inexperienced person making such repairs, to the risk of serious injury, electrical shock or death.

W007

WARNING

If you or an unqualified person perform service on your product, you must assume the responsibility for any personal injury or property damage which may result. The manufacturer will not be responsible for any injury or property damage arising from improper service and/or service procedures.

W008

NOTE: The WARNINGS and IMPORTANT INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining or operating the dryer.

Always contact your dealer, distributor, service agent or the manufacturer about any problems or conditions you do not understand.

Locating an Authorized Servicer

Alliance Laundry Systems is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Alliance Laundry Systems also recommends contacting an authorized technician and using authorized factory parts.

Section 2
Introduction

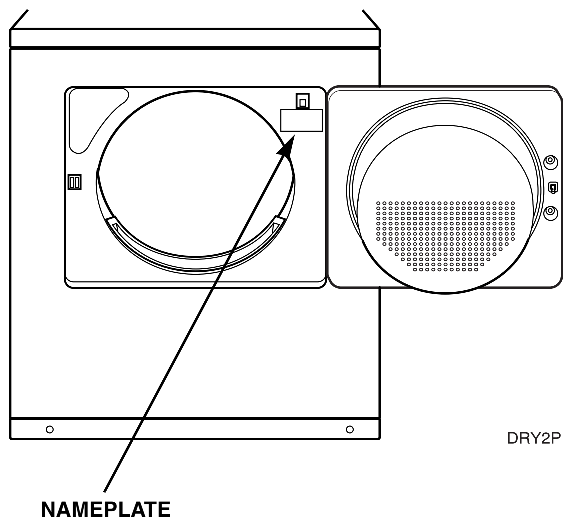
Customer Service

If literature or replacement parts are required, contact the source from whom the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

For technical assistance, call (920) 748-3121.

Nameplate Location

When calling or writing about your product, be sure to mention model and serial numbers. Model and serial numbers are located on nameplate(s) as shown.

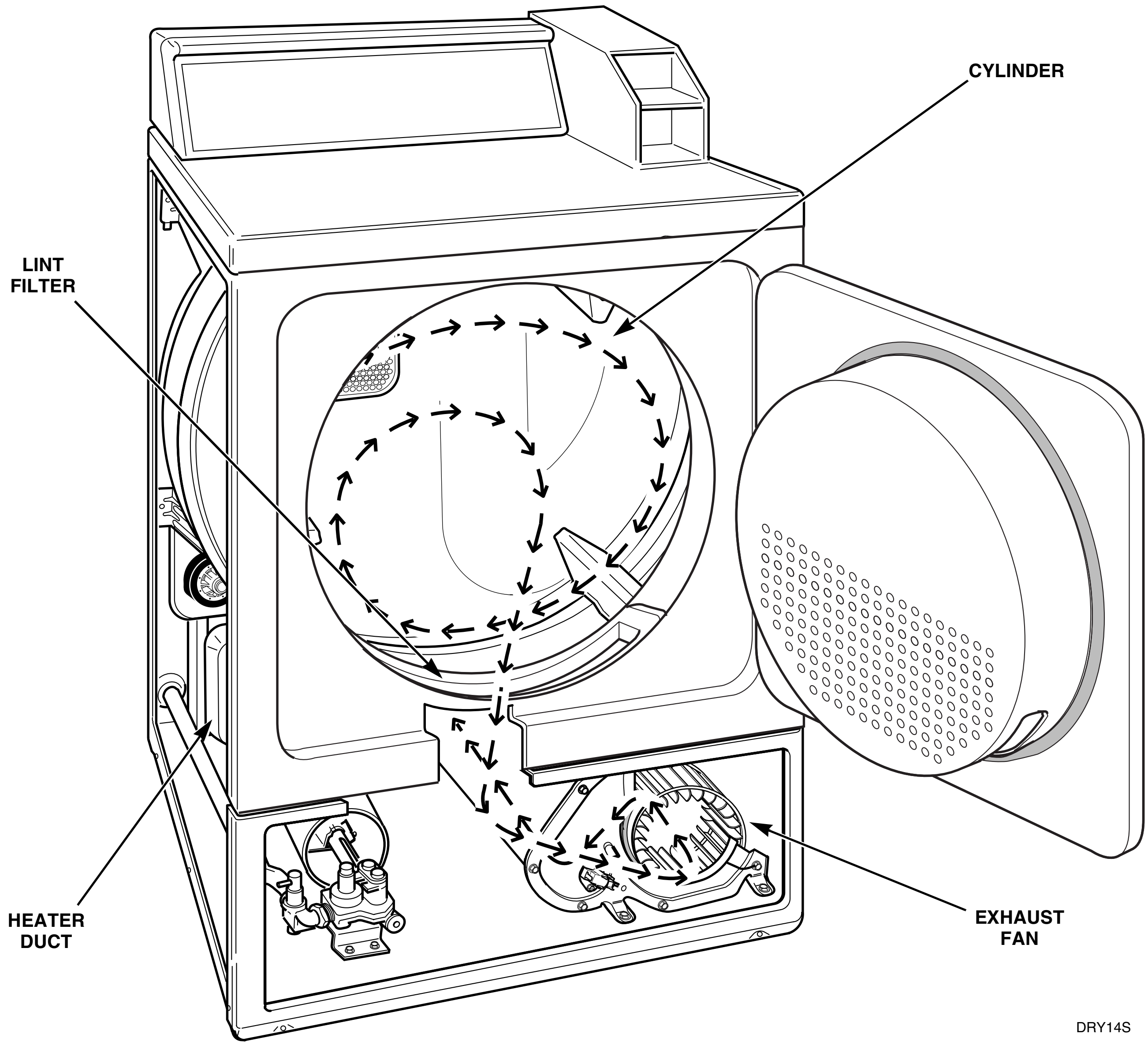


Model Identification

Information in this manual is applicable to these dryers.

Electric				Gas			
AE9133	NE6613	AE5113	NE3513	AG9139	NG6619	AG5119	NG3519
NE8633	NE6533	VE5013	NE3313	NG8639	NG6539	VG5019	NG3319
NE8533	NE6333	NE4713	VE3013	NG8539	NG6339	NG4719	VG3019
NE8333	NE6513	NE4613	NE2113	NG8339	NG6519	NG4619	NG2119
NE7513	NE6313	NE4513		NG7519	NG6319	NG4519	
NE7313	NE5513	NE4313		NG7319	NG5519	NG4319	
AE7133	NE5313	AE4113		AG7139	NG5319	AG4119	

How Your Dryer Works



The dryer uses heated air to dry loads of laundry. When the motor is started, the exhaust fan pulls air in through louvers at the rear of the dryer and over the heat source (burner flame for gas and heating element for electric). The heated air moves through the heater duct and into the cylinder, where it circulates through the wet load. The air then passes through the lint filter, air duct, and exhaust fan, where it is vented to the outdoors.

Notes

Section 3
Troubleshooting

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

IMPORTANT: Refer to appropriate model wiring diagram for aid in testing dryer components.

1. MOTOR DOES NOT RUN

POSSIBLE CAUSE	TO CORRECT
Electrical power off, fuse blown, or power cord not plugged in.	• Has the laundry room fuse(s) blown or become loosened, or are circuit breakers open? The dryer itself does not have an electrical fuse. A 240 Volt dryer has an electrical circuit with two fuses — Make sure both are good and are tight.
Loading door not closed or inoperative door switch.	• Close door or test switch and replace if inoperative.
Motor overload protector has cycled.	• Wait two or three minutes for overload protector to reset. If protector cycles repeatedly, refer to *Paragraph 2*.
*Timer improperly set.	• Reset timer, or try another cycle.
Inoperative motor switch.	• Test switch and replace if inoperative.
*Start circuit not completed.	• Press or rotate start switch button, or test switch or timer and replace if inoperative.
Inoperative motor.	• Test motor and replace if inoperative.
*Inoperative timer.	• Test timer and replace if inoperative.
Broken, loose, or incorrect wiring.	• Refer to appropriate wiring diagram.
Power cord is miswired.	• Refer to appropriate wiring diagram for the correct wiring.
Motor centrifugal switch sticky or plugged with lint.	• Remove dust or lint and spray with “Slyde”, No. 131P4, to clean and lubricate.
†Inoperative electronic control.	• Refer to **Section 8** to check out the electronic control operation.

*Mechanical Timer Models Only
†Electronic Control Models Only

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

2. MOTOR OVERLOAD PROTECTOR CYCLES REPEATEDLY

POSSIBLE CAUSE	TO CORRECT
Incorrect voltage.	• Refer to ***Installation Instructions*** (supplied with dryer) for electrical requirements.
Clothes load too large	• Remove part of load. A normal washer load is a normal dryer load. Maximum load: Dryer cylinder one half full of wet clothes.
Clothes cylinder is binding	• Check cylinder for binding and “out of round” condition. • Check front and rear bulkheads for warping. • Check support rollers for binding. • Check cylinder seals and glides for wear or damage.
Inoperative motor overload protector.	• Replace drive motor.

3. MOTOR RUNS BUT CYLINDER DOES NOT TURN

POSSIBLE CAUSE	TO CORRECT
Motor drive pulley loose.	• Tighten setscrew, *Figure 29*.
Belt not installed on pulley.	• Install belt.
Broken cylinder belt.	• Replace belt.
Clothes cylinder is binding.	• Check cylinder for binding and “out of round” condition. • Check front and rear bulkheads for warping. • Check cylinder rollers for binding. • Check cylinder seals and glides for wear or damage.
Broken or disconnected idler lever spring.	• Replace or reconnect spring. Refer to *Figure 29*.

4. MOTOR DOES NOT STOP

POSSIBLE CAUSE	TO CORRECT
Incorrect wiring.	• Refer to appropriate wiring diagram.
Motor centrifugal switch sticky or plugged with lint.	• Remove dust or lint and spray with “Slyde”, No. 131P4, to clean and lubricate.
Inoperative door switch.	• Test switch and replace if inoperative.
*Inoperative timer.	• Test timer and replace if inoperative.
†Inoperative electronic control.	• Refer to **Section 8** to check out the electronic control operation.

*Mechanical Timer Models Only
†Electronic Control Models Only

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

5. HEATER ASSEMBLY DOES NOT HEAT OR BURNER DOES NOT IGNITE

POSSIBLE CAUSE	TO CORRECT
Blown fuse or tripped circuit breaker.	• Has the laundry room fuse(s) blown or become loosened, or are circuit breakers open? The dryer itself does not have an electrical fuse. A 240 Volt dryer has an electrical circuit with two fuses — Make sure both are good and are tight.
*Temperature selector switch set at FLUFF, or inoperative.	• Reset switch, or test switch and replace if inoperative.
*Timer improperly set (Set in a cool-down period, or a no heat cycle).	• Reset timer. Try another cycle.
Inoperative limit thermostat.	• Test thermostat and replace if inoperative.
Electric Models: Inoperative heater assembly.	• Test heater assembly. Replace heater assembly if cold Ohms do not read between 8 and 10.5 Ohms.
Gas Models: Insufficient gas supply.	• Check gas shut-off valve in dryer and main gas line valve. Open partially closed gas shut-off valve, or correct low gas pressure.
Inoperative drive motor switch.	• Test switch and replace if inoperative.
Gas Models: Inoperative gas valve coils.	• Test coils and replace if inoperative. Refer to *Paragraph 39*.
Gas Models: Inoperative sensor.	• Test sensor and replace if inoperative. Refer to *Paragraph 40*.
Gas Models: Inoperative igniter.	• Test igniter and replace if inoperative. Refer to *Paragraph 40*.
Electric Models: Inoperative thermal fuse.	• Test thermal fuse and replace if inoperative. Refer to *Paragraph 44*.
*Inoperative cycling thermostat.	• Test thermostat and replace if inoperative. Refer to *Paragraph 42*.
*Inoperative timer.	• Test timer and replace if inoperative. Refer to *Paragraph 23*.
†Inoperative electronic control.	• Refer to **Section 8** to check out the electronic control operation.
†Read-out on electronic control indicates “SH”.	• Thermistor is shorted, replace thermistor.
†Read-out on electronic control indicates “OP”.	• Thermistor is open, replace thermistor.
Broken, loose, or incorrect wiring.	• Refer to appropriate wiring diagram.

*Mechanical Timer Models Only
†Electronic Control Models Only

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

6. IGNITER DOES NOT GLOW (Gas Supply Sufficient) – GAS MODELS

POSSIBLE CAUSE	TO CORRECT
*No power to power leads on valve.	• Check timer, selector switch, thermostats, motor switch and wiring.
Sensor failed with contacts open.	• Replace sensor.
Igniter broken or open.	• Replace igniter.
†Inoperative electronic control.	• Refer to **Section 8** to check out the electronic control operation.

7. BURNER IGNITES AND GOES OUT REPEATEDLY – GAS MODELS

POSSIBLE CAUSE	TO CORRECT
Improper or inadequate exhaust system. Weather hood flapper restricted.	• Refer to ***Installation Instructions*** (supplied with dryer) for electrical requirements.
Burner heat not holding sensor contacts open.	• Replace sensor, or correct gas supply problem.
Insufficient gas supply.	• Check gas supply and pressure. Is gas shut-off valve turned on?
Cracked igniter.	• Replace igniter and bracket.
Inoperative or intermittent gas valve coils.	• Check and replace appropriate coil. Refer to *Paragraph 39*.

8. IGNITER GLOWS BUT BURNER DOES NOT IGNITE – GAS MODELS

POSSIBLE CAUSE	TO CORRECT
Sensor failed in closed position.	• Replace sensor.
Open secondary coil or holding and booster coil.	• Replace gas valve (in-warranty), or replace coils (out-of-warranty). Refer to parts manual for part numbers of coils.
Insufficient gas supply.	• Check gas supply and pressure. Is gas shut-off valve turned on?
Igniter and bracket installed improperly on burner tube assembly.	• Loosen screw and properly position igniter and bracket on burner tube assembly.
Sensor installed improperly on burner housing.	• Loosen screw and properly position the sensor on the burner housing.

*Mechanical Timer Models Only
†Electronic Control Models Only

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

9. HEATER ASSEMBLY OR BURNER SHUTS OFF PREMATURELY

POSSIBLE CAUSE	TO CORRECT
Improper or inadequate exhaust system. Weather hood flapper restricted.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.
Gas Models: Insufficient gas supply.	• Check gas shut-off valve in dryer and main gas line valve. Open partially closed gas shut-off valve, or correct low pressure.
Gas Models: Dryer not properly equipped for type of gas being used.	• Refer to “Gas Burner Conversion Procedures” in this manual to convert burner.
Gas Models: Improperly adjusted burner flame.	• Adjust flame, *Paragraph 61*.
Cycling off on limit thermostat.	• Momentarily connect a jumper wire across thermostat terminals. If heater assembly heats or burner ignites when jumper wire is connected, refer to *Paragraph 10*.
Gas models: Sensor contact closing prematurely. Burner flame improperly adjusted.	• Replace sensor or adjust burner flame. Refer to *Paragraph 61*.
*Inoperative cycling thermostat.	• Test thermostat and replace if inoperative.
*Inoperative timer.	• Test timer and replace if inoperative.
Broken, loose, or incorrect wiring.	• Refer to appropriate wiring diagram.
†Inoperative electronic control.	• Refer to **Section 8** to check out the electronic control operation.

10. HEATER ASSEMBLY OR BURNER REPEATEDLY CYCLES OFF ON LIMIT THERMOSTAT

POSSIBLE CAUSE	TO CORRECT
External exhaust system longer than recommended.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust system requirements.
Clogged lint filter.	• Remove and clean lint filter.
Lint in internal dryer ductwork.	• Disassemble dryer ductwork and clean.
Lint in external exhaust system.	• Disassemble exhaust system and clean.
Hinged damper on exhaust system weather hood not free to open.	• Free hinged damper or replace weather hood
*Limit thermostat cycling at too low a temperature.	• Replace thermostat, *Paragraph 47*.
Air leak around loading door. (Door not sealing due to damaged seal or inoperative door catch.)	• Replace seal or catch.
†Inoperative thermistor.	• Test thermistor and replace if inoperative.
Air leak at blower seal.	• Check and replace seal if necessary.

*Mechanical Timer Models Only
†Electronic Control Models Only

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

11. HEATER ASSEMBLY OR BURNER DOES NOT SHUT OFF

POSSIBLE CAUSE	TO CORRECT
Improper motor switch. Timer must be in a heat setting.	• Test switch and replace if inoperative.
Motor does not stop.	• Refer to *Paragraph 4*.
Incorrect wiring.	• Refer to appropriate wiring diagram.
Heater assembly shorted.	• Remove heater assembly and check for short.

12. CLOTHES DO NOT DRY

POSSIBLE CAUSE	TO CORRECT
Heater assembly does not heat or burner does not ignite.	• Refer to *Paragraph 5*.
Too much water in articles being dried.	• Remove excess water.
Clothes load too large.	• Remove part of load. A normal washer load is a normal dryer load. Maximum load: Dryer cylinder one half full of wet clothes.
Excessive lint on lint filter.	• Clean lint filter.
Load too small.	• Add one or two bath towels to load.
Automatic cycle.	• Adjust to more dry setting.
Three position heat selector switch or timer set on FLUFF or inoperative.	• Reset switch or timer, or test and replace the switch or timer if inoperative.
Improper or inadequate exhaust system.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.
Heater assembly or burner shuts off prematurely.	• Refer to *Paragraph 9*.
Gas Models: Gas line pressure too high or too low.	• If natural gas line pressure to dryer exceeds 8 inch water column pressure, or is lower than 4 inch water column, ask gas company to correct.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

13. TIMER DOES NOT ADVANCE IN AUTOMATIC CYCLE (Mechanical Timer Models Only)

POSSIBLE CAUSE	TO CORRECT
Inoperative high or low thermostat.	• Test thermostat and replace if inoperative.
Heater assembly does not heat or burner does not ignite.	• Refer to *Paragraph 5*.
Heater assembly or burner cycles off prematurely.	• Refer to *Paragraph 9*.
Improper or inadequate exhaust system.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.
*Drying large load.	• Timer will not advance until the load is almost dry.
Broken, loose or incorrect wiring.	• Refer to appropriate wiring diagram.

14. CLOTHES ARE TOO HOT WHEN REMOVED FROM DRYER

POSSIBLE CAUSE	TO CORRECT
Clothes are removed from dryer before cycle has completed.	• Allow the dryer to complete the cycle, through the cool-down to the OFF position.
Inoperative cycling thermostat. Inoperative thermostat heater on the DELICATE setting.	• Test cycling thermostat or thermostat heater and replace if inoperative.
Inoperative timer (not allowing cool-down).	• Test timer and replace if inoperative.
Improper or inadequate exhaust system.	• Refer to ***Installation Instructions*** (supplied with dryer) for exhaust requirements.

*Mechanical Timer Models Only
†Electronic Control Models Only

Notes

Section 4
Grounding

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

15. MOTOR MOUNTING BRACKET TO MOTOR
Figure 1

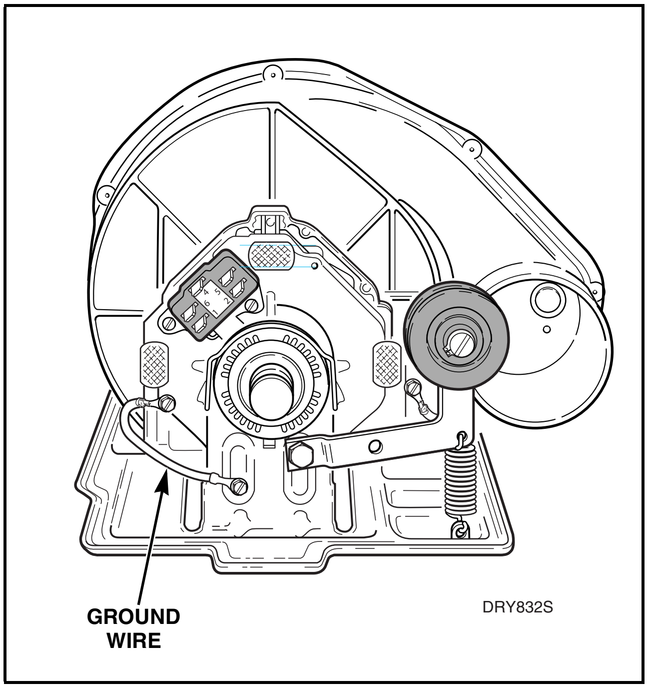


Figure 1

16. MOTOR MOUNTING BRACKET TO EXHAUST FAN COVER (Gas and Electric Models with painted exhaust fan cover – ground wire not used on unpainted covers)
Figure 2

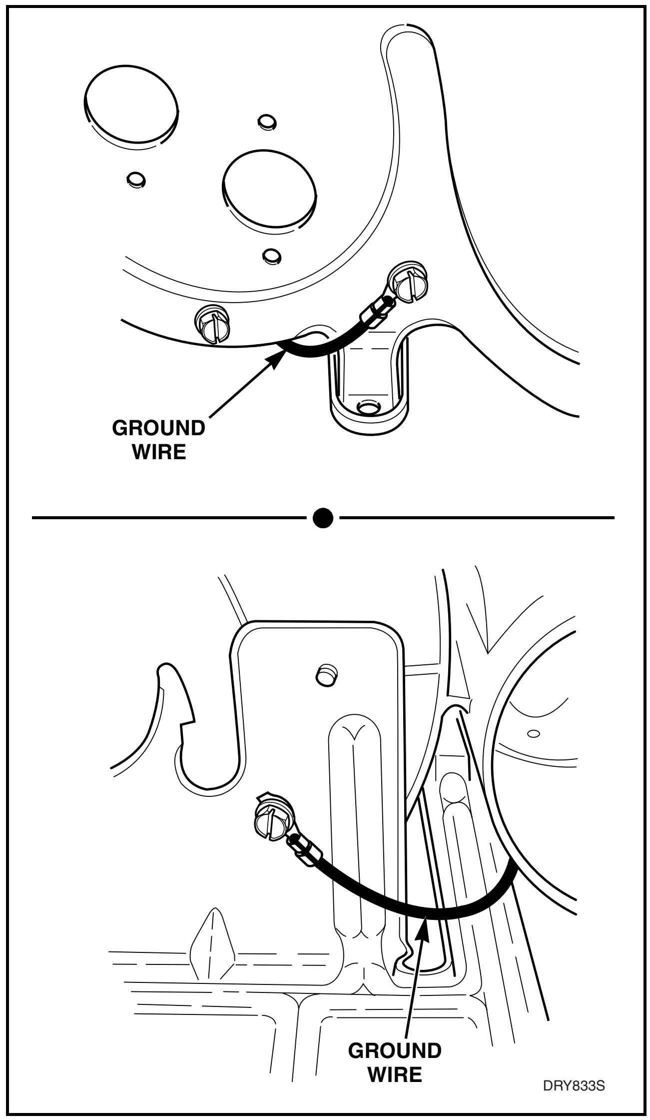


Figure 2

WARNING
To reduce the risk of electric shock, fire, explosion, serious injury or death: **• Disconnect electric power to the dryer(s) before servicing.** **• Close gas shut-off valve to gas dryer(s) before servicing.** **• Never start the dryer(s) with any guards/panels removed.** **• Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.** W001R1

17. NEUTRAL AT TERMINAL BLOCK TO TERMINAL BLOCK BRACKET AND FRONT TERMINAL BLOCK BRACKET TO CONTROL HOUSING (Electric Models Only) ***Figure 3***

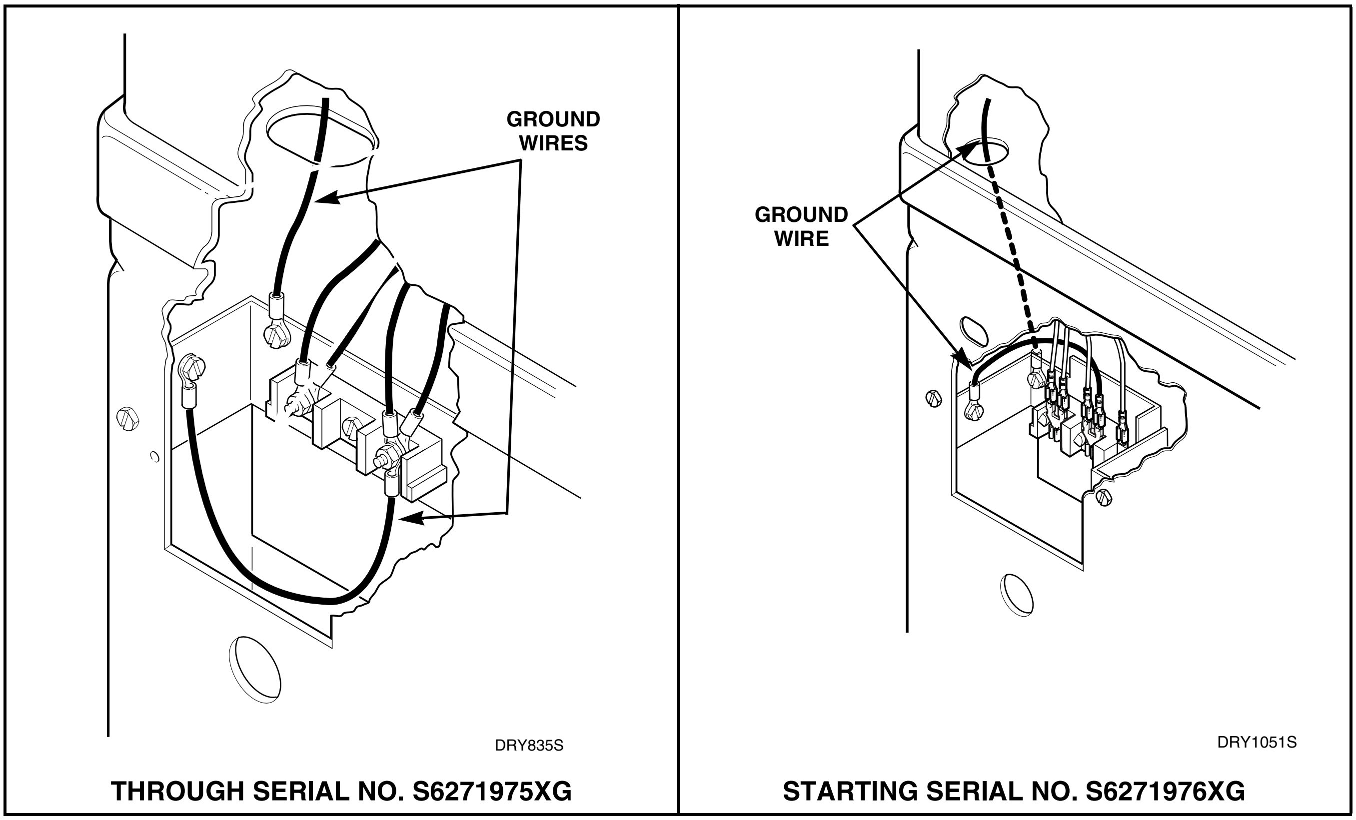


Figure 3

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

18. POWER CORD TO TERMINAL BLOCK BRACKET AND FROM TERMINAL BLOCK BRACKET TO CONTROL HOUSING. WALL RECEPTACLE POLARITY CHECK (Gas Models Only) *Figure 4*

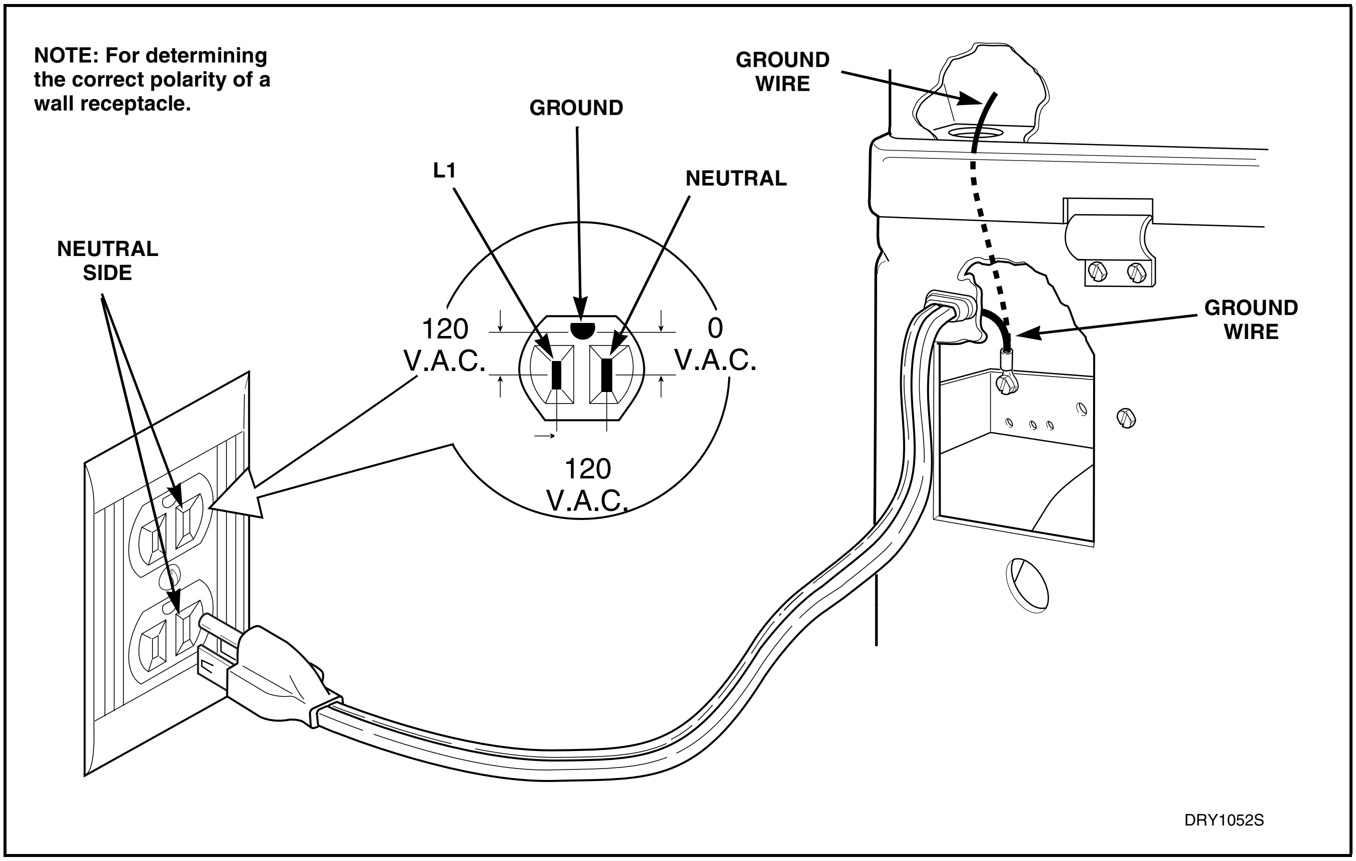


Figure 4

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

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19. FROM TERMINAL BLOCK BRACKET TO TIMER MOUNTING BRACKET TO DRYER CABINET TOP. TIMER MOUNTING BRACKET TO GRAPHIC PANEL (Mechanical Timer Model Dryers Only) ***Figure 5***

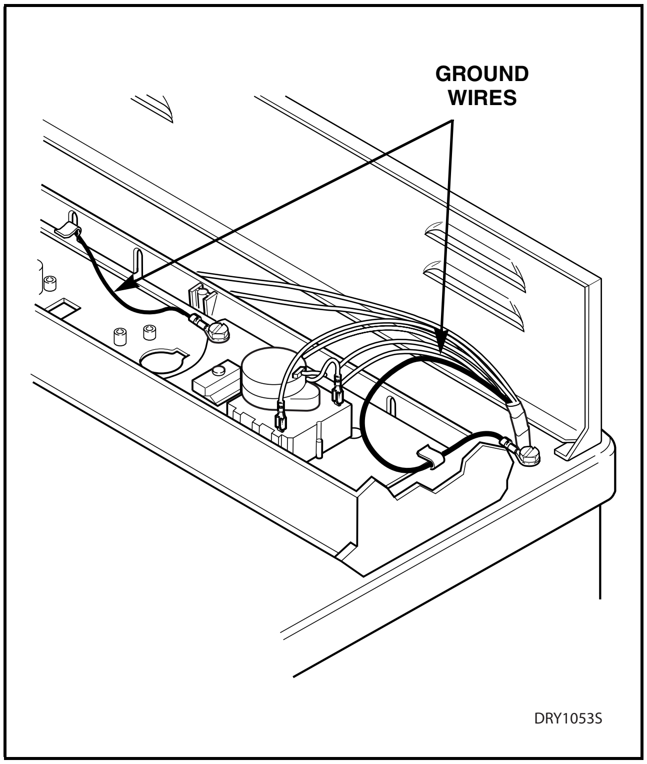


Figure 5

20. FROM TERMINAL BLOCK BRACKET TO DRYER CABINET TOP TO ELECTRONIC CONTROL TO GRAPHIC PANEL (Electronic Control Model Dryers) ***Figure 6***

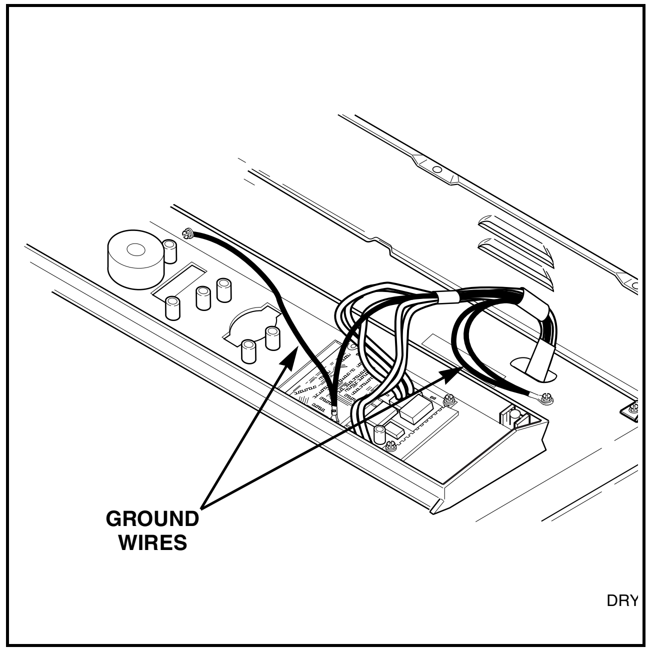


Figure 6

Section 5
Service Procedures

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

IMPORTANT: When reference to direction (right or left) is made in this manual, it is from the operator's position facing the front of the dryer.

21. **CONTROL HOOD ASSEMBLY**
 Refer to *Figures 7*, *8* or *9*
 a. Remove six screws (three top and three bottom holding the hood assembly to the control hood rear panel and cabinet top.
 b. Disconnect the wires from the component parts and carefully remove the components from the control hood assembly.

NOTE: Refer to the appropriate wiring diagram when rewiring the component parts.

TO REMOVE CONTROL HOOD END CAPS OR INSERTS
Remove end caps by carefully prying caps out of slots in ends of hood. Refer to *Figures 7*, *8* or *9*.

Remove inserts by carefully peeling insert off ends of hood. Refer to *Figures 7*, *8* or *9*.

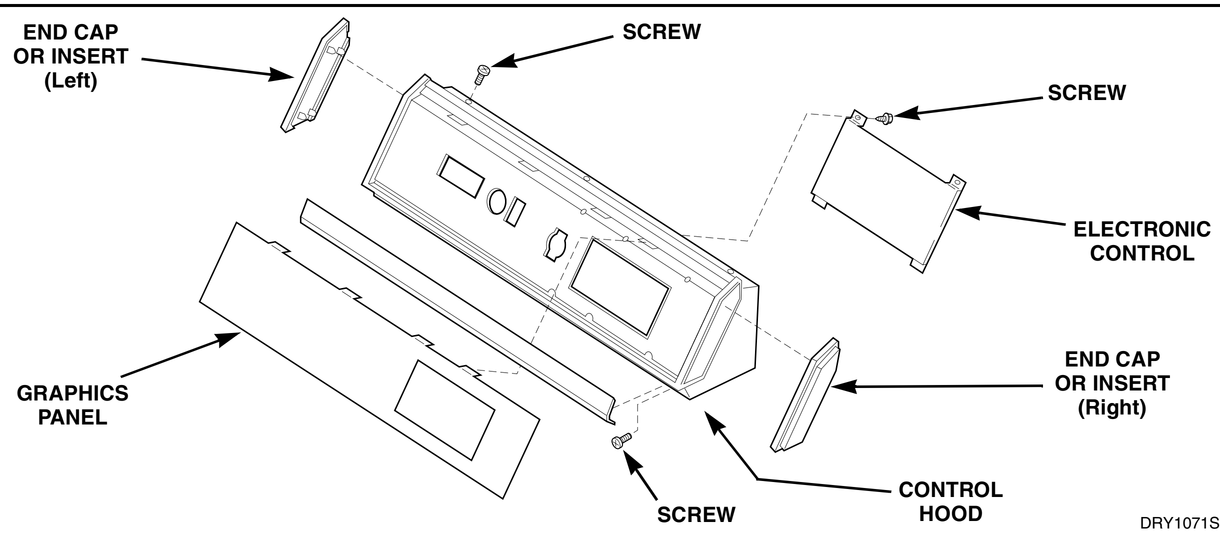
22. **ELECTRONIC CONTROL**
 Refer to *Figure 7* for control removal.

IMPORTANT: When removing or installing an electronic control, handle the control by the edges, or the control could become damaged.

NOTE: Refer to the appropriate wiring diagram when rewiring the electronic control.

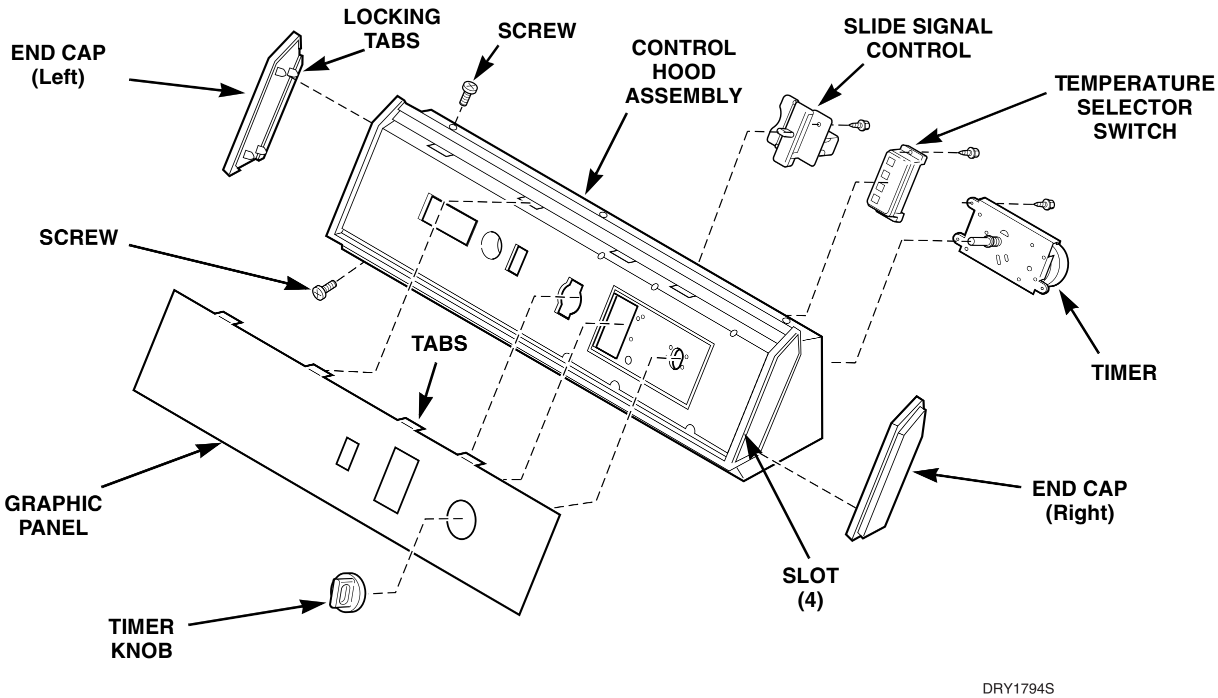
23. **TIMER**
 Refer to *Figure 8* or *9* for timer removal.

NOTE: Refer to the appropriate wiring diagram when rewiring the timer.

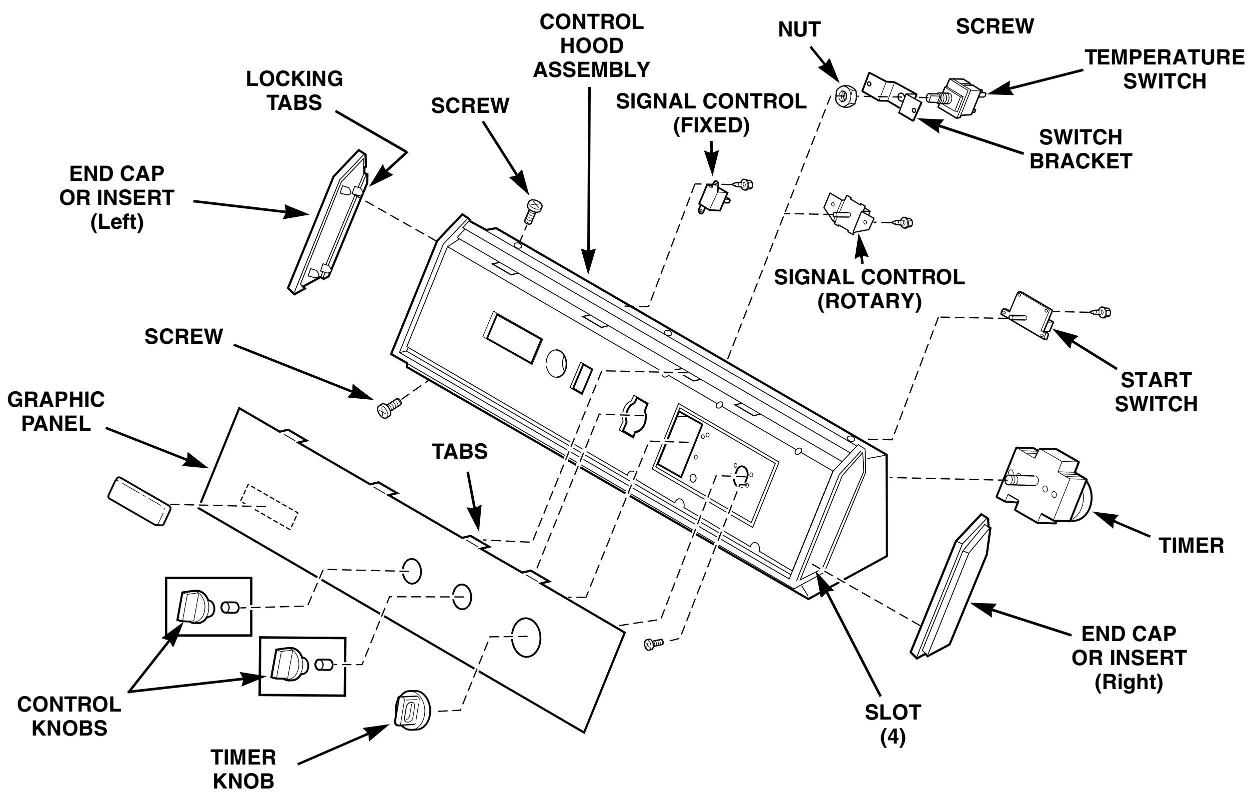


GRAPHIC PANEL, CONTROL HOOD AND CONTROLS
(Models AG9139, AE9133, NG8639, NE8633, NG8539, NE8533, NG8339, NE8333, NG7139, NE7133, NG6539, NE6533,NG6339 and NE63330

Figure 7

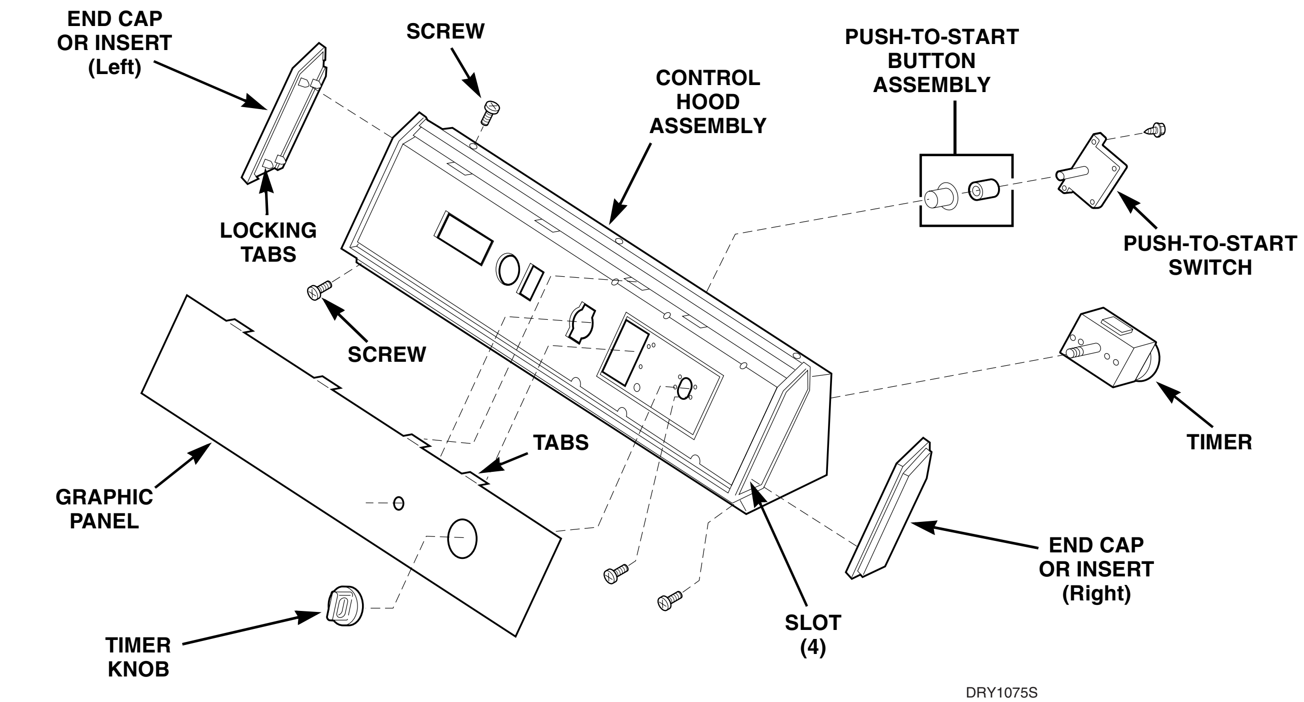


GRAPHIC PANEL, CONTROL HOOD AND CONTROLS
(Models NG7519, NE7513, NG7319 and NE7313)

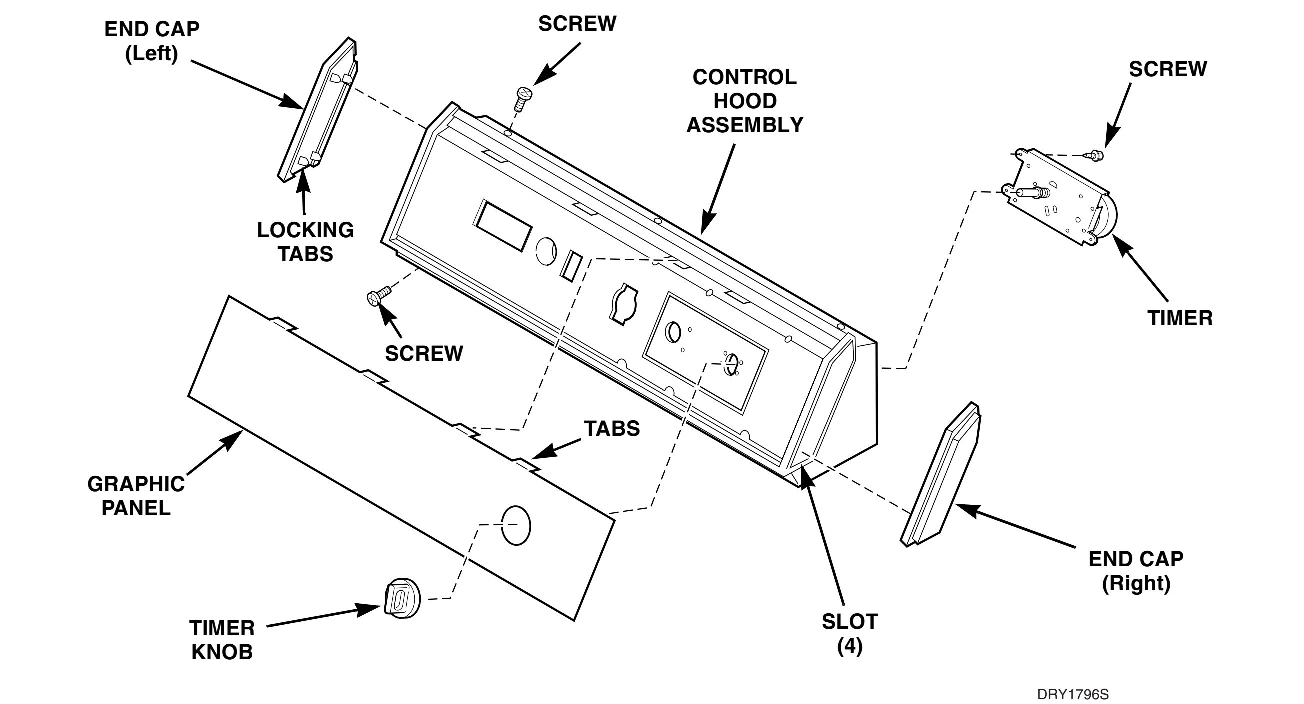


GRAPHIC PANEL, CONTROL HOOD AND CONTROLS
(Models NG6619, NE6613, NG6519, NE6513, NG6319, NE6313, NG5519, NE5513, NG5319, NE5313, AG5119, AE5113, VG5019, VE5013, NG4719, NE4713, NG4619, NE4613, NG4519, NE4513, NG4319 and NE4313)

Figure 8



GRAPHIC PANEL, CONTROL HOOD AND CONTROLS
(Models AG4119, AE4113, NG3519, NE3513, NG3319, NE3313, VG3019 and VE3013)



GRAPHIC PANEL, CONTROL HOOD AND CONTROLS
(Models NG2119 and NE2113)

Figure 9

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

To Test Timer Contact Points

1. Remove six screws (three on top and three at lower front) holding the hood assembly to the control hood rear panel and cabinet top. Refer to *Figure 8* or *9*.
2. Disconnect wires from timer.

NOTE: Refer to appropriate wiring diagram when rewiring timer.

3. Set test meter to read OHMS and put meter probes to terminals indicated in table below.
4. Starting with timer knob indicator in OFF position at top of timer, slowly turn timer knob clockwise until indicator is again pointing toward OFF position at top of timer. Meter should register "zero" reading when circuit being tested is completed by timer. Refer to appropriate wiring diagram for Timer Cycle Chart showing when circuit is made.

Circuit to be Tested	Timer No. 59418	Timer No. 59420	Timer No. 59421	Timer No. 59422	Timer No. 59497	Timer No. 61402
Timer Motor	L1 and M	L1 and M	L2 and T	L2 and T	L2 and T	L2 and T
Signal Control	—	P and B	B and P	P and B	B and B	P and B
Motor	L1 and M	L1 and M	L1 and M	L1 and M	L1 and M	L1 and M
Heat	L1 and H	L2 and H	L2 and H	—	L2 and H	—
High Temperature Heat	—	—	—	L2 and H2	—	L2 and H2
Low Temperature Heat (Delicate)	—	—	—	L2 and H1	—	L2 and H1 and H2
Push-to-Start	—	M and S	M and S	—	—	—

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

24. TEMPERATURE SWITCH

Refer to *Figure 8* for switch removal.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

To Test Temperature Switch

1. Remove six screws (three on top and three at lower front) holding the hood assembly to the control hood rear panel and to the cabinet top. Refer to *Figures 8* or *9*.
2. Disconnect all wires from switch.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

3. Set test meter to read OHMS and apply meter leads to the switch terminals. Follow the appropriate wiring diagram for your model dryer. Refer to ***Section 10*** of this manual.

25. SIGNAL CONTROL

Refer to *Figure 8* for signal control removal.

NOTE: Refer to the appropriate wiring diagram when rewiring the signal control.

To Test Signal Control

1. Remove six screws (three on top and three at lower front) holding the hood assembly to the control hood rear panel and to the cabinet top. Refer to *Figure 8*.
2. Disconnect wires from signal control.
3. Set meter to read Ohms and apply probes to terminals of signal control. Meter should rear approximately 1,000 Ohms at all times.

26. START SWITCH

Refer to *Figures 8* or *9* for switch removal.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

To Test Start Switch (Push or Rotary Type)

1. Remove six screws (three on top and three at lower front) holding the hood assembly to the control hood rear panel and to the cabinet top. Refer to *Figures 8* or *9*.
2. Set voltometer to Ohms scale and “zero” at appropriate scale.
3. Unplug dryer from electrical supply and disconnect wires from switch terminals.
4. Place meter probes on switch terminals. You should see an “infinite” reading on the meter.
5. With probes attached to switch, proceed as follows:
   Push Type Switch – Press the start switch button. You should read “0” zero Ohms.
   Rotary Type Switch – Rotate the switch knob to the right (clockwise). You should read “0” zero Ohms.

27. GRAPHIC PANEL

Refer to *Figures 7*, *8* or *9*

a. Remove screws (three top and three bottom holding the hood assembly to the control hood rear panel and cabinet top.
b. Disconnect the wires from the component parts and carefully remove the components from the control hood assembly.

NOTE: Refer to the appropriate wiring diagram when rewiring the component parts.

c. Bend the tabs on the graphic panel (located inside of control hood) straight out toward rear of hood.
d. Carefully remove the graphics panel off the front of the control hood.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

28. LINT FILTER
Refer to *Figure 10*
Open loading door and lift filter out of front air duct.

IMPORTANT: When installing the filter, be sure to place the filter into the front air duct with the word "Front" facing the front of the dryer.

29. LOADING DOOR
Remove four screws holding hinges to door. Refer to *Figure 10*.

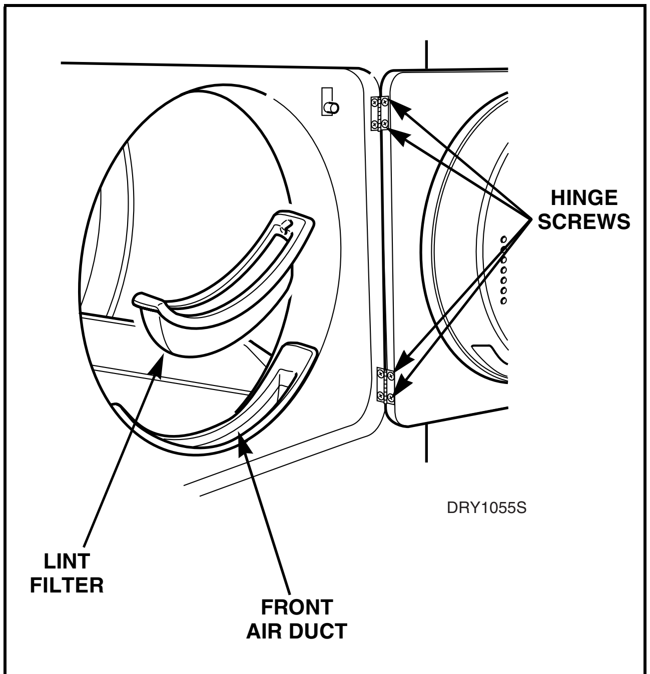


Figure 10

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

30. INNER AND OUTER DOOR PANELS AND DOOR HANDLE

a. Remove four screws holding hinges to door. Refer to *Figure 10*.

b. Remove screws holding handle to door and separate panels. Refer to *Figure 11*.

IMPORTANT: Do not over-tighten screws when reinstalling door handle and avoid scratching inner door panel.

31. DOOR STRIKER

Refer to *Figure 11*

a. Remove two screws holding handle to door.

b. Spread door panels just far enough to depress tabs on top and bottom of striker and push out of inner panel.

32. DOOR SEAL

Open loading door and remove seal from inner door panel.

NOTE: When replacing seal, be sure seal is not stretched or distorted. Use a heat resistant adhesive (such as Krazy Glue®) to adhere door seal to inner door panel.

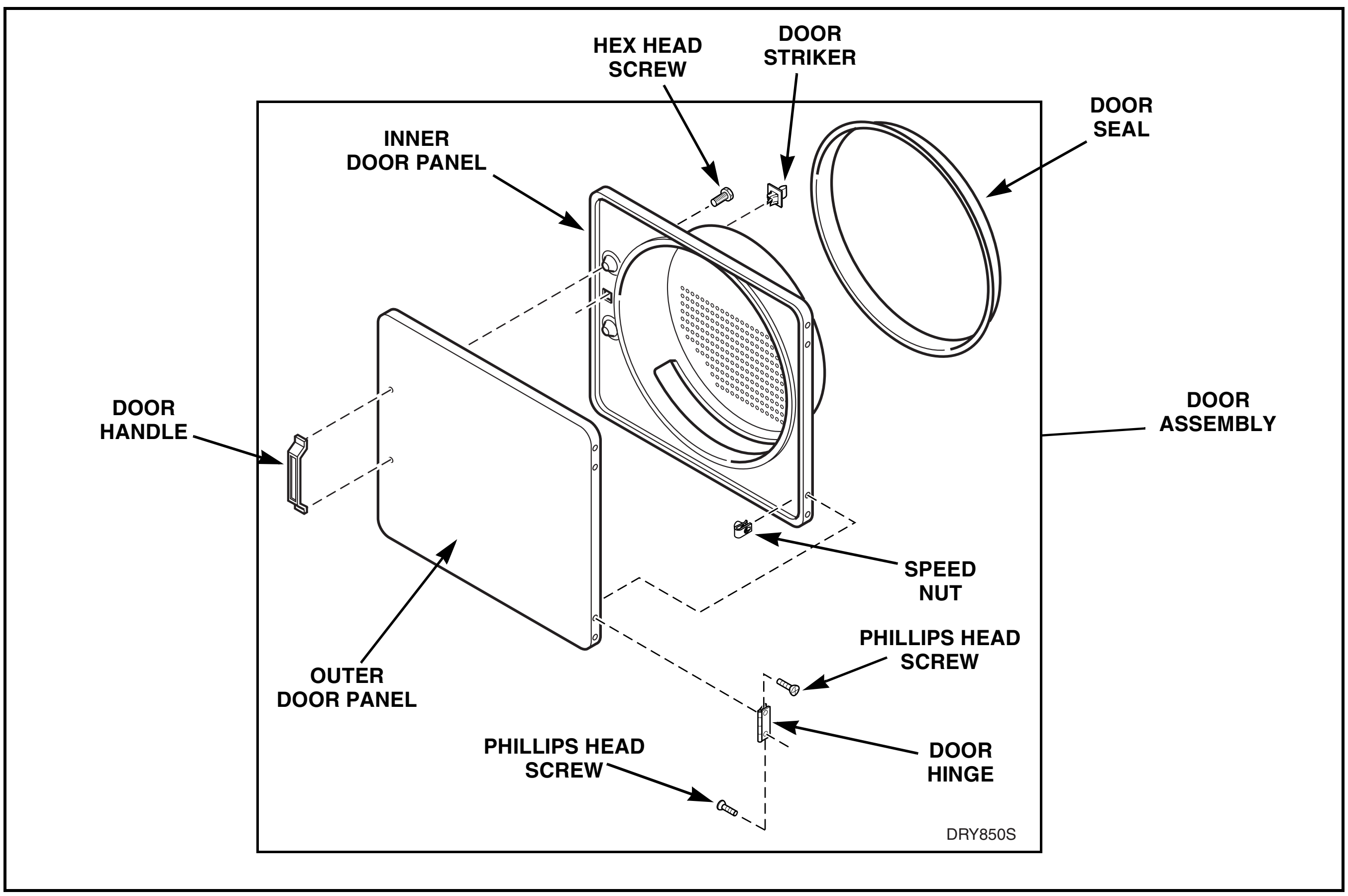


Figure 11

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

33. FRONT PANEL AND PANEL SEAL

Refer to *Figure 12*

a. Remove two screws from the bottom edge of the front panel.

b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top.

c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Remove front panel seal from flange around inside of door opening.

NOTE: Be sure seal is properly positioned when installing on front panel.

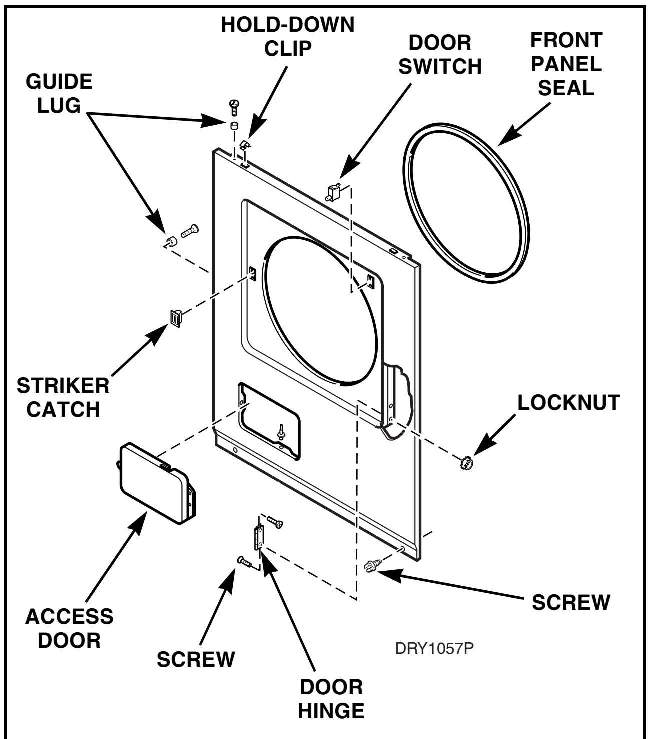


Figure 12

34. DOOR SWITCH

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.

b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.

c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Depress tabs on top and bottom of switch and push out of front panel. Refer to *Figure 13*.

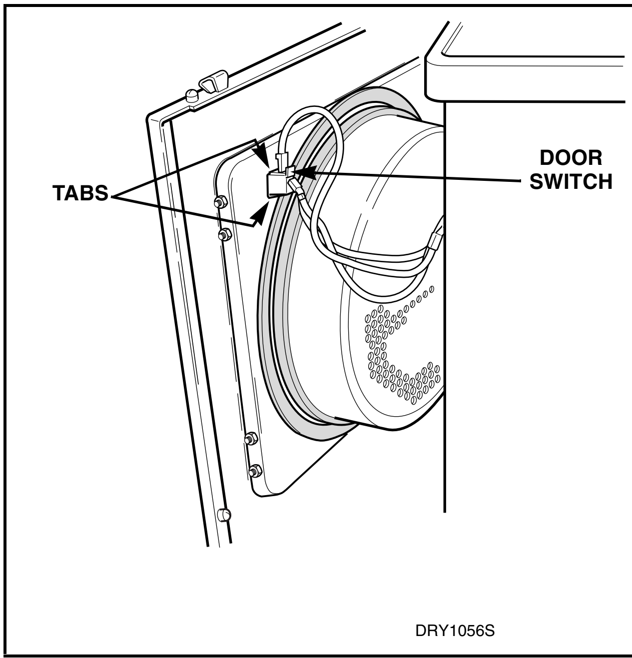


Figure 13

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

To Test Door Switch

1. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

2. Set meter or read Ohms and apply meter probes on switch terminals 1 and 3 with door closed. You should get "zero" reading.
3. Apply probes to terminals 1 and 2 with door closed. The meter should read "infinite".
4. Open door. Meter should read "infinite" between 1 and 3 and "zero" between 1 and 2.

35. STRIKER CATCH

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Depress tabs on top and bottom of catch and push out of front panel. Refer to *Figure 12*.

36. DOOR HINGE

a. Open loading door and remove four screws holding door assembly to hinges. Refer to *Figure 10*.
b. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
c. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
d. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

e. Remove four screws and locknuts holding hinges to front panel. Refer to *Figure 12*.

37. HOLD-DOWN CLIPS AND GUIDE LUGS

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Compress hold-down clips and remove from slot in top flange of front panel. Refer to *Figure 12*.
e. Remove four screws holding four guide lugs to front panel. Refer to *Figure 12*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

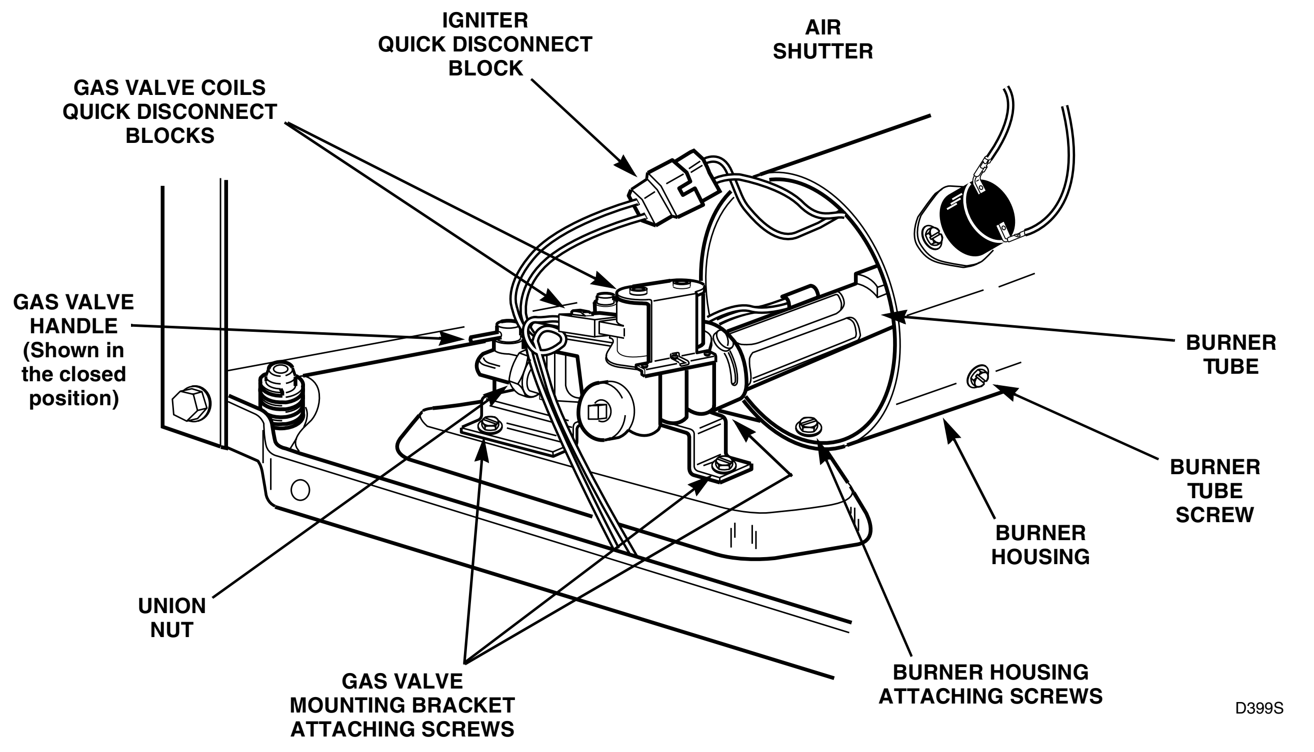


Figure 14

38. BURNER SYSTEM OPERATION (Gas Models)

Refer to *Figure 15*

a. **Components**

This burner has four basic components: A silicon carbide (glow bar) igniter, burner tube, sensor, and a two-stage gas valve consisting of a split-coil valve and a secondary coil valve. The split-coil valve is opened when the dryer thermostat calls for heat, while the secondary valve does not open until the igniter has attained ignition temperature.

b. **Pre-Ignition Circuits**

When the dryer thermostat calls for heat, circuits are completed through the holding coil, sensor, booster coil and igniter. Both coils must be energized to open split-coil valve. Once opened, the holding coil can hold the valve open without assistance from the booster coil. The current shunted around the secondary coil by the sensor, passes through the igniter causing it to get hot.

c. **Burner Circuit**

In approximately 30 seconds, the igniter attains ignition temperature and the sensor (located on burner housing beside the igniter) contacts open. A circuit is then completed through the secondary valve coil, opening the valve and allowing gas to flow. Ignition is made and the heat from the burner flame causes the sensor contacts to remain open.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

39. IGNITION SYSTEM FEATURES (Gas Models)

Refer to *Figure 15*

a. **Momentary Power Interruption**

Upon resumption of power, sensor contacts will still be open, permitting secondary valve to open. However, with the secondary coil in the circuit, the booster coil cannot draw enough current to open the split-coil valve. When sensor contacts do reclose, the secondary valve will close, and the burner system will be in the normal pre-ignition circuit.

b. **Flame Failure**

In case of flame failure, the sensor contacts will reclose in about 45 seconds. This will close the secondary valve and the burner system will be in the normal pre-ignition circuit.

c. **Ignition Failure**

If flame is not established as sensor contacts open, secondary valve will remain open until sensor contacts reclose. Sensor will continue to recycle the igniter and secondary valve (about once per minute) until ignition is made or dryer is turned off.

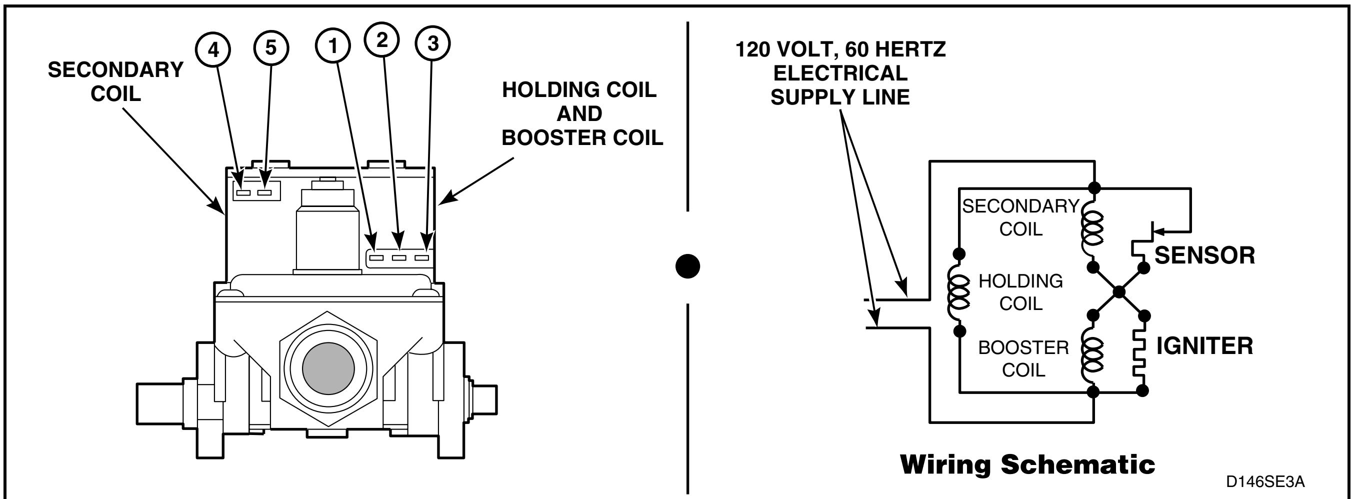


Figure 15

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

To Test Electrical Circuit To Ignition System (Gas Models)

1. Remove valve wire harness disconnect block from the holding and booster coil. Refer to *Figure 15*.
2. Plug dryer power cord into wall receptacle, start the dryer in a heat setting (refer to the Operating Instructions supplied with dryer).
3. Set test meter to read AC voltage and apply meter probes into terminals on the dryer harness that would correspond to terminals “1” and “2” on the coil. Refer to *Figure 15*. Meter should register line voltage in all Fabric settings, except FLUFF which should read “zero” VAC.
4. If meter does not read line voltage in step “3”, check motor switch, thermostat, thermistor, temperature switch or timer.

To Test Gas Valve Coils (Gas Models)

1. Remove disconnect blocks from gas valve coils. Refer to *Figure 15*.
2. Set test meter to read OHMS and put meter probes to terminals as follows:
   a. Holding Coil (Refer to *Figure 16*) – Terminals 1 and 2 - Meter should read 1365 ± 25 Ohms.
   b. Booster Coil (Refer to *Figure 16*) – Terminals 1 and 3 - Meter should read 560 ± 25 Ohms.
   c. Secondary Coil (Refer to *Figure 16*) – Terminals 4 and 5 - Meter should read 1220 ± 50 Ohms.

NOTE: If meter registers any readings other than that listed above, the respective coil should be replaced.

NOTE: Test procedure can be performed on workbench if gas valve, igniter, burner tube and burner housing have been removed from dryer.

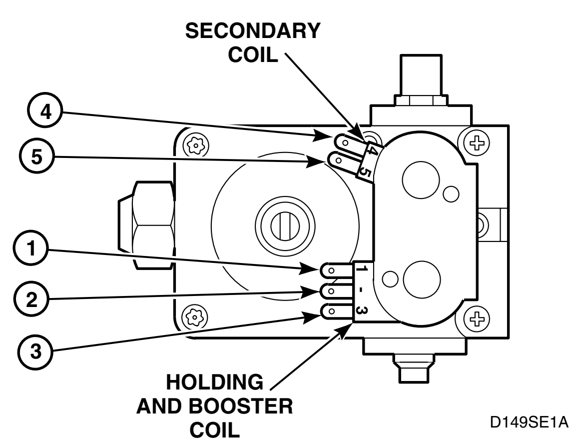


Figure 16

40. BURNER SYSTEM COMPONENTS – GAS MODELS

a. **Complete Gas Valve Assembly**

(1) Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.

(2) Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.

(3) Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

(4) Close gas shut-off valve, disconnect igniter wires at disconnect blocks, sensor wires from sensor terminals, and wires from gas valve coils at the quick disconnect blocks. Refer to *Figure 14*.

(5) Disconnect gas shut-off valve from gas valve at the union nut. Refer to *Figure 14*.

(6) Remove three screws holding valve and mounting bracket to base. Refer to *Figure 14*.

(7) Lift gas valve and mounting bracket from base. Refer to *Figure 14*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

NOTE: The holding and booster coil, and the secondary coil can be replaced individually.

b. **Burner Tube, Igniter and Bracket**

NOTE: Burner tube and igniter can be removed without removing gas valve and bracket.

(1) Remove one screw from right side of burner housing holding burner tube in place. Refer to *Figure 14*.
(2) Gently move burner tube toward rear of dryer to disengage tab from slot on left side of burner housing. Refer to *Figure 18*.
(3) Carefully rotate burner tube and igniter **counterclockwise** so tab is at 8 o'clock position.
(4) Move air shutter end of burner tube slightly to right and CAREFULLY remove burner tube and igniter assembly out through front of dryer.
(5) Remove screw holding the igniter and bracket to the burner tube and remove igniter and bracket. Refer to *Figure 17*.

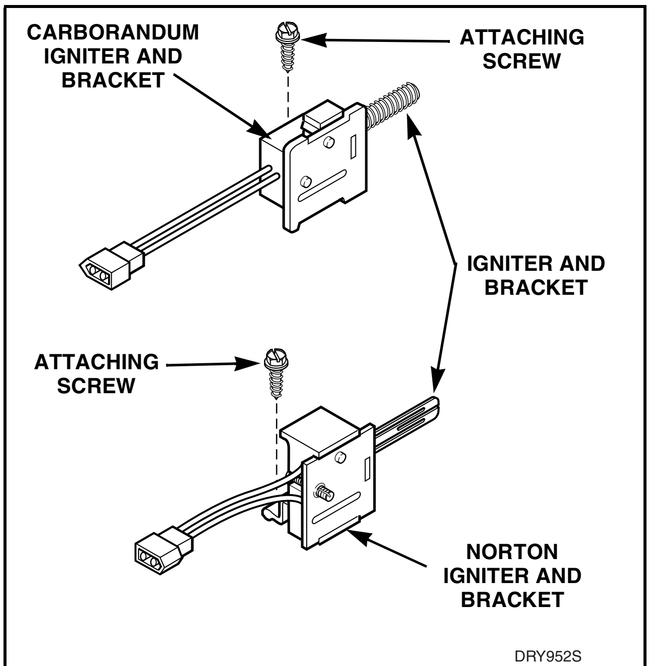


Figure 17

IMPORTANT: Use care in removal so as not to damage or break igniter as it is very fragile.

IMPORTANT: Handle igniter by grasping the white ceramic portion or bracket only. DO NOT handle silicon carbide portion of igniter with hands or allow any oil, grease or other foreign material to contaminate it. Oil, grease and other impurities or hairline cracks will cause the igniter to burn out.

To Test Igniter (Gas Models)

1. Disconnect igniter wires at disconnect block. Refer to *Figure 47*.
2. Set test meter to read OHMS and put meter probes on terminals of igniter wires.
3. Meter should register an Ohm reading of at least 40 Ohms. If meter does not register any Ohms or less than 40 Ohms, replace the igniter.

IMPORTANT: Always examine all wires, terminals and connectors to be sure wiring is proper before replacing any components.

NOTE: Test procedure can be performed on workbench if gas valve, igniter, burner tube and burner housing have been removed from dryer.

c. **Sensor**

(1) Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
(2) Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
(3) Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

(4) Remove wires from sensor terminals. Refer to *Figure 18*.
(5) Remove screw holding sensor to burner housing. Refer to *Figure 18*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

To Test Sensor (Gas Models)

1. Remove wires from sensor terminals. Refer to *Figure 18*.
2. Set test meter to read OHMS and put meter probes on sensor terminals. Meter should read “zero” Ohms. If meter registers an Ohm reading of any amount, replace sensor.

NOTE: Test procedure can be performed on workbench if gas valve, igniter, burner tube and burner housing have been removed from dryer.

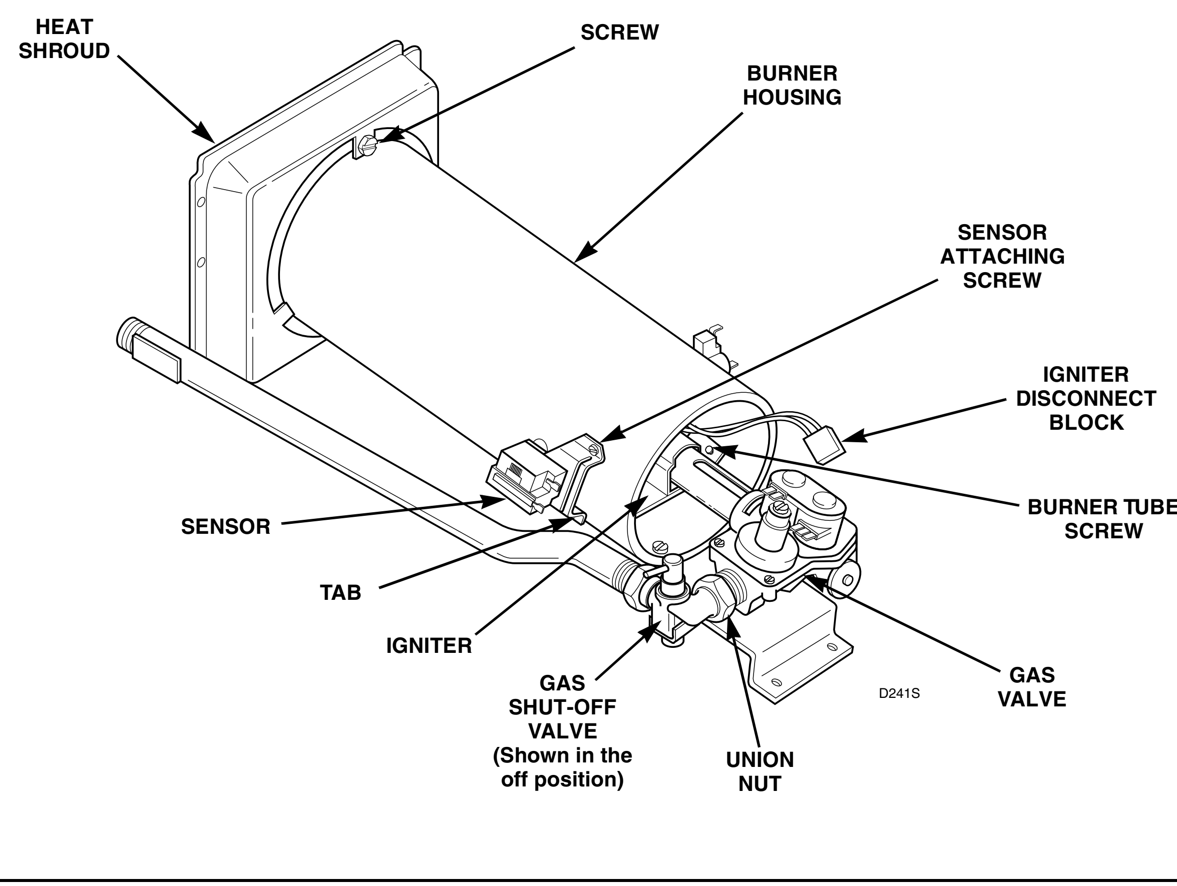


Figure 18

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

41. BURNER HOUSING AND HEAT SHROUD

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Disconnect igniter wires at disconnect blocks, sensor wires from sensor terminals, and wires from gas valve coils at the quick disconnect blocks. Refer to *Figure 14*.
e. Remove screw from right side of burner housing, holding burner tube in place. Refer to *Figure 14*.
f. Gently move burner tube toward rear of dryer to disengage tab from slot on left side of burner housing. Refer to *Figure 18*.
g. Carefully rotate burner tube and igniter **counterclockwise** so tab is at 8 o'clock position.
h. Move air shutter end of burner tube slightly to right and CAREFULY remove burner tube and igniter assembly out through front of door.

IMPORTANT: The igniter is very fragile. Be careful not to damage it during removal.

i. Remove screw holding burner housing to heat shroud. Refer to *Figure 18*.
j. Remove screw holding front of burner housing to dryer base and remove housing out through front of dryer. Refer to *Figure 14*.
k. Remove two screws holding shroud to heater box and remove shroud out through front of dryer.

42. LIMIT THERMOSTAT

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Disconnect wires and remove screws attaching limit thermostat to burner housing or element plate. Refer to *Figure 19*.

To Test Cycling or Limit Thermostat

1. Disconnect wires from thermostat or thermistor.

NOTE: Refer to appropriate wiring diagram when rewiring thermostat or thermistor.

2. **Cycling Thermostat (S.P.S.T.), Limit Thermostat or Thermistor**
   a. Set meter to read Ohms.
   b. Apply meter probes to the thermostat or thermistor terminals.
   c. Meter should read "infinite".
3. **Cycling Thermostat (S.P.D.T.)**
   a. Set meter to read Ohms.
   b. Apply meter probes to terminals 1 and 3. Meter should read "infinite" and "zero" between terminals 1 and 2.
   c. Remove screws holding thermostat to exhaust fan cover.
   d. Heat thermostat with a small flame until a distinct "click" is heard, then immediately apply meter probes to terminals 1 and 3; meter should read "zero".
   e. While thermostat is still hot, apply meter probes to thermostat terminals 1 and 2; meter should read "infinite" until thermostat cools at which time the meter should read "zero."

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

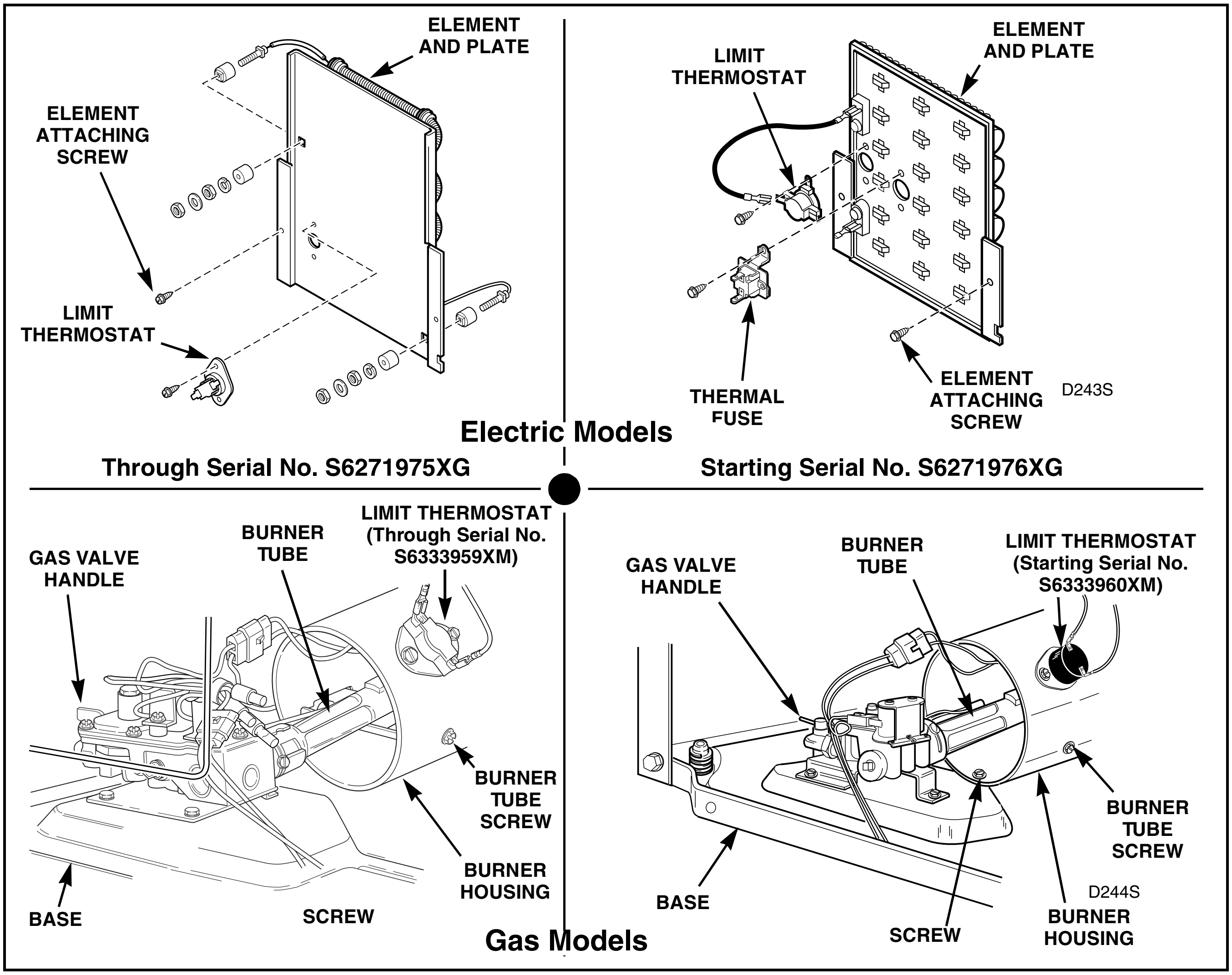


Figure 19

43. HEATER ASSEMBLY

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.

b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.

c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Remove two screws holding element and plate to heater box and pull element down and away from heater box. Refer to *Figure 19*.

e. Disconnect wires from element and plate.

f. Remove screws holding thermostat (and thermal fuse, if present) to element and plate. Refer to *Figure 19*.

NOTE: When reassembling, be sure all wire connectors are tight on element terminals, thermal fuse and limit thermostat.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

44. HIGH OR LOW THERMOSTAT OR THERMOSTAT AND HEATER OR THERMISTOR

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Disconnect wires, remove attaching screws, and remove thermostat or thermostat and heater or thermistor. Refer to *Figure 20*.

NOTE: Refer to the appropriate wiring diagram when rewiring thermostat, thermostat and heater or thermistor.

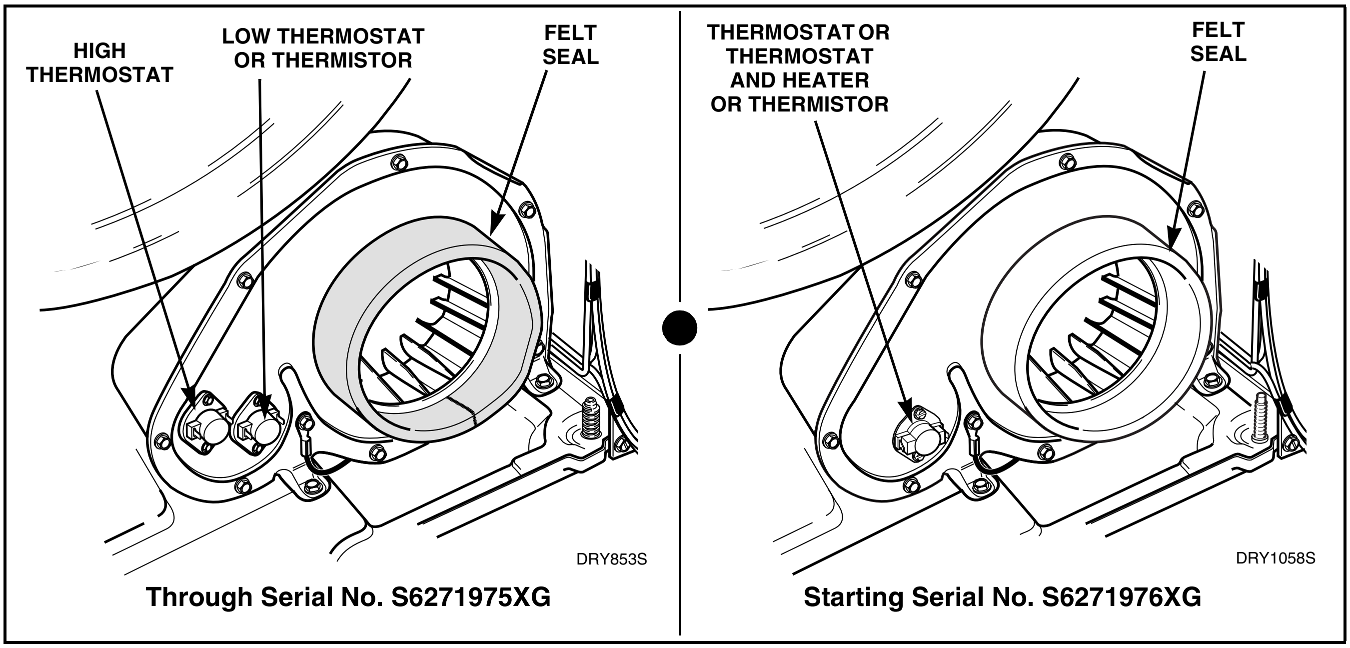


Figure 20

To Test Thermostat Heater

1. Disconnect wires from thermostat heater.

NOTE: Refer to appropriate wiring diagram when rewiring thermostat heater.

2. Set meter to read Ohms. Apply meter probes to the thermostat heater terminals. Meter should read 2,400 Ohms ± 240 Ohms cold.

To Test Thermal Fuse (Electric Models)

1. Disconnect wires from thermal fuse.

NOTE: Refer to appropriate wiring diagram when rewiring thermal fuse.

2. Set meter to read Ohms. Apply meter probes to thermal fuse terminals. Meter should read “infinite”. If meter does not register any Ohms, replace both the thermal fuse and the limit thermostat.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

To Test Heater Assembly (Electric Models)

1. Disconnect wires from heater assembly.

NOTE: Refer to appropriate wiring diagram when rewiring heater assembly.

2. Set meter to read Ohms. Apply meter probes to the heater assembly terminals. Meter should read 10.4 Ohms ± .30 Ohms cold.

45. FRONT AIR DUCT

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Remove lint filter out of front air duct. Refer to *Figure 10*.

NOTE: When installing lint filter, be sure to install the filter with the words "FRONT" facing the front of the dryer.

e. Remove four screws holding air duct to front bulkhead and remove air duct. Refer to *Figure 21*.

NOTE: When reassembling, be sure felt seal on exhaust fan cover makes air tight seal on flange of duct. Refer to *Figure 20*.

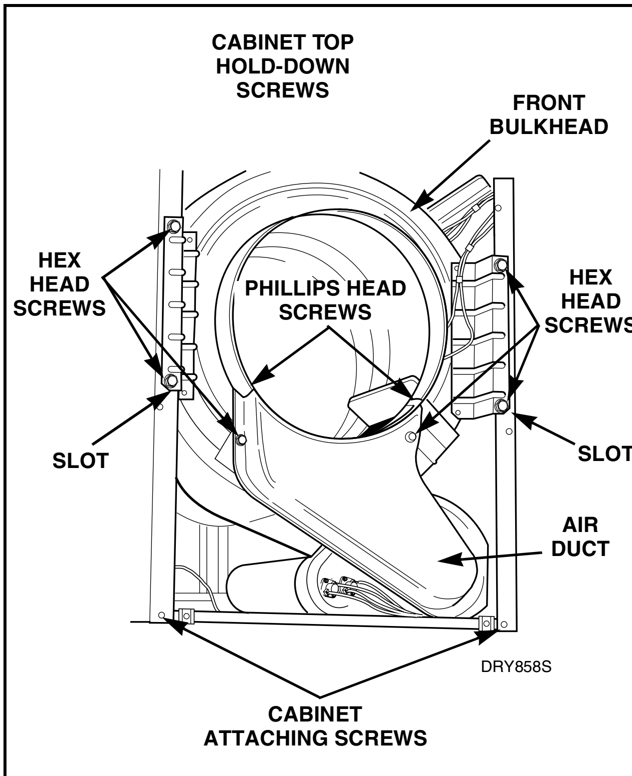


Figure 21

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

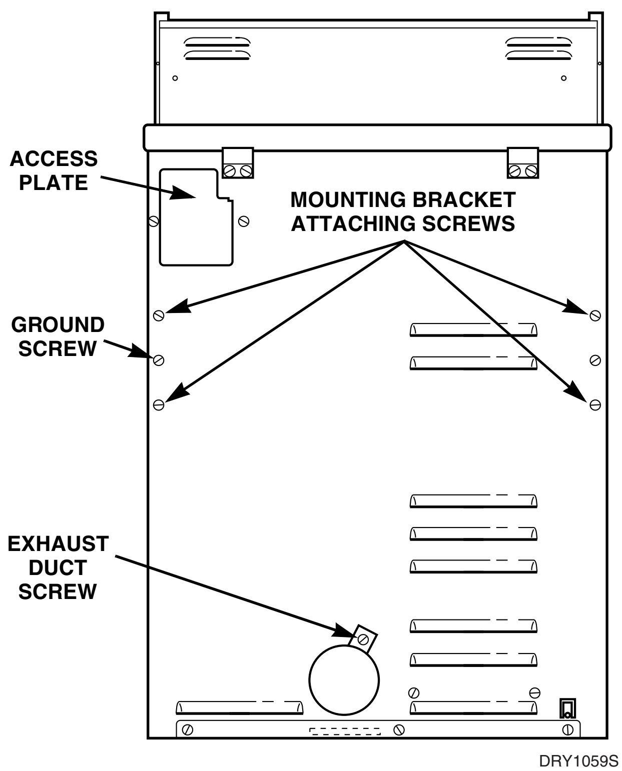


Figure 22

46. EXHAUST DUCT

a. Disconnect electric power, vent (and gas line if necessary) and move unit to gain access to rear of dryer.
b. Remove screw holding bracket on exhaust duct to rear of cabinet. Refer to *Figure 22*.
c. Pull duct out through rear of cabinet.

47. MOTOR AND EXHAUST ASSEMBLY

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Remove lint filter. Refer to *Figure 10*.

NOTE: When installing lint filter, be sure to install the filter with the words "FRONT" facing the front of the dryer.

e. Remove screws holding air duct to front bulkhead and remove air duct. Refer to *Figure 21*.

NOTE: When reassembling, be sure felt seal on exhaust fan cover makes air tight seal on flange of air duct. Refer to *Figure 20*.

f. Disconnect wires from thermistor, thermostat or thermostat and heater. Refer to *Figure 20*.

NOTE: Refer to appropriate wiring diagram when rewiring thermistor or thermostat or thermostat and heater.

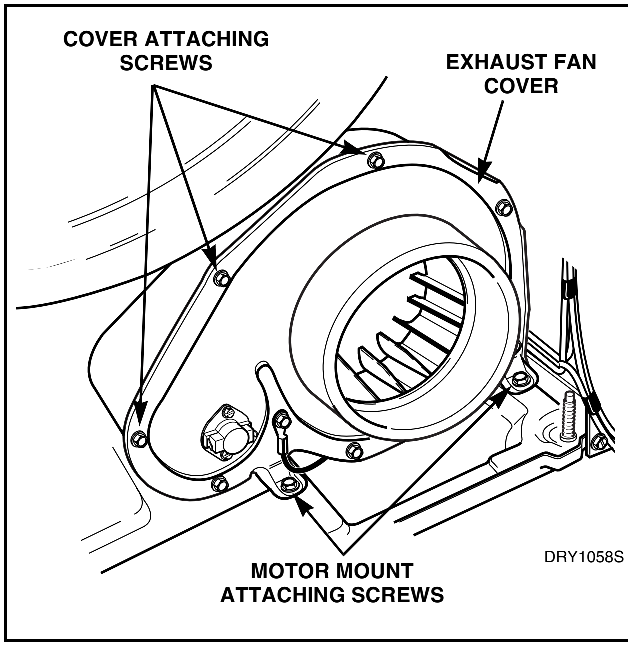


Figure 23

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

g. Remove cylinder belt from idler and motor pulleys. Refer to *Figure 24*.

h. Remove two screws holding motor mounting bracket to dryer base. Refer to *Figure 23*. Then pull complete assembly out thorough front of dryer.

IMPORTANT: When reinstalling motor and exhaust assembly, be sure wire harness on right side is clipped to motor mounting bracket and is routed along dryer base (between motor mounting bracket and right side of cabinet). Refer to *Figure 23*. Tab on rear of motor mounting bracket must be slid into slot in dryer base. Be sure the belt has been installed on the correct side of the idler lever. Refer to *Figure 24*.

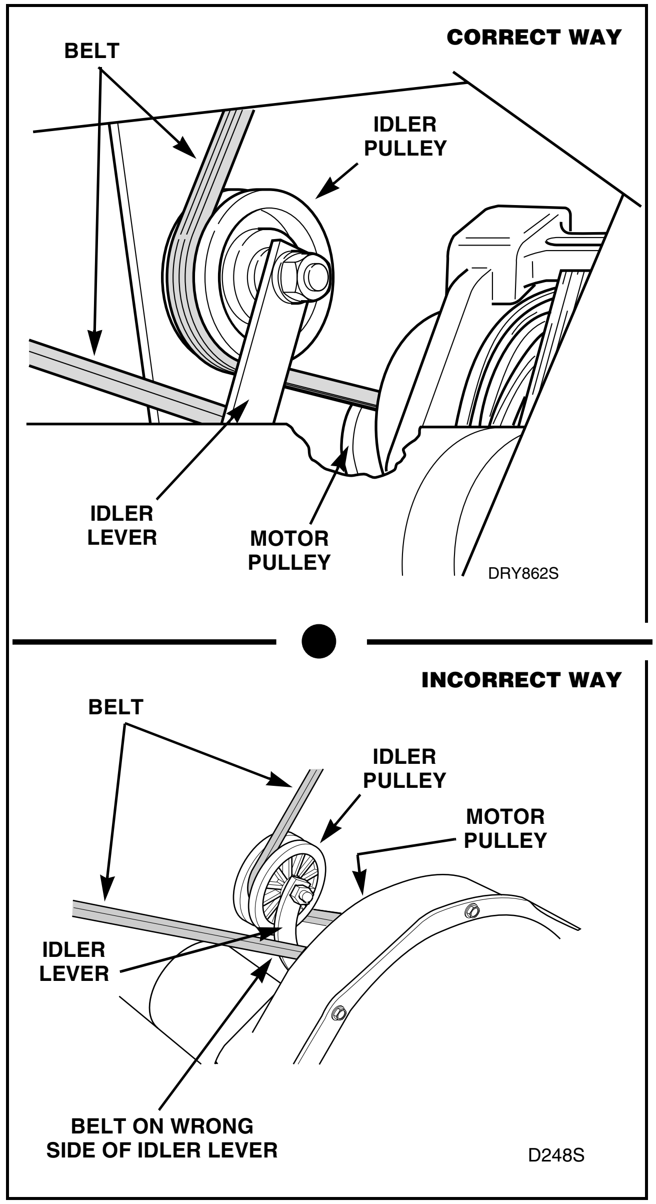


Figure 24

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

To Test Drive Motor:

Refer to *Figure 25*

1. Remove motor and exhaust assembly.
2. Disconnect wires from motor switch.

NOTE: Refer to appropriate wiring diagram when rewiring motor switch.

3. Put test meter probes on terminals 4 and 5. Meter should read approximately one on Ohm scale.
4. Put test meter probes on terminal 4 and motor frame. Meter should register "no reading" or infinite.
5. Put test meter probes on terminal 5 and motor frame. Meter should register "no reading or infinite.
6. Put test meter probes on terminals 4 and 6. Meter should register "no reading" or infinite. Manually flex the centrifugal switch in motor, meter should read approximately two on Ohm scale.
7. Put test meter probes on terminals 1 and 2. Meter should register "no reading." Manually flex the centrifugal switch in motor, meter should read "zero" Ohms.

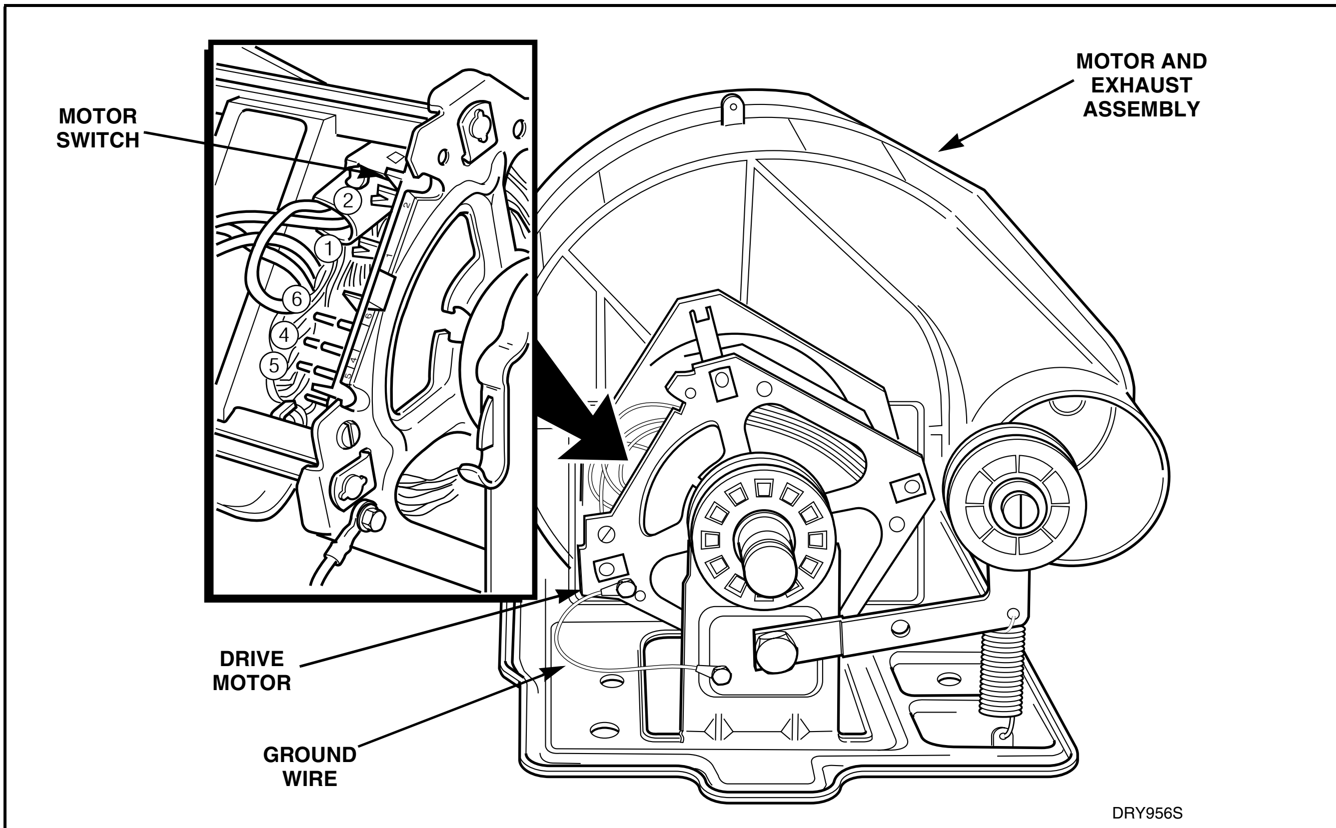


Figure 25

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

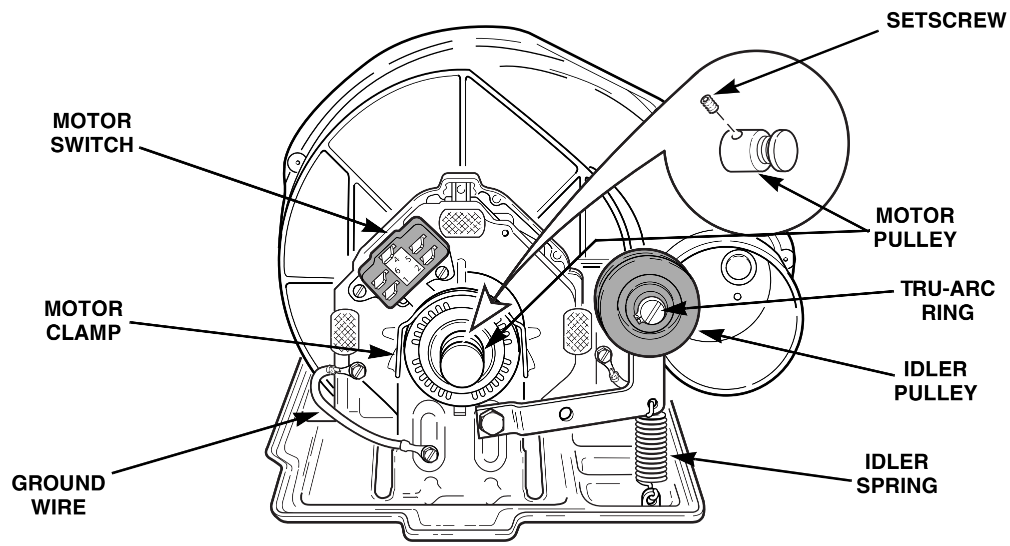


Figure 26

i. **Motor Pulley and Idler Pulley Assemblies**
   (1) Refer to *Figure 26* for motor and idler pulley removal.

j. **Impeller and Housing**
   (1) Remove screw holding ground wire (if present) to exhaust fan cover. Refer to *Figure 26*.

NOTE: Ground wire must be routed as shown in Figure 2. Refer to SECTION IV "Grounding."

   (2) Remove screws holding cover to housing. Refer to *Figure 24*.
   (3) Hold motor pulley securely and unthread impeller from motor shaft (right hand thread). Use a 7/8 inch, 6 point socket to aid in the removal of the impeller.
   (4) Remove three screws and washers holding the exhaust housing to the motor mounting bracket. Refer to *Figure 27*.

k. **Motor**
   (1) Disconnect wires from motor switch. Refer to *Figure 26*.

NOTE: Refer to appropriate wiring diagram when rewiring motor switch.

   (2) Disconnect ground wire from motor. Refer to *Figure 26*.
   (3) Pry two motor clamps off using a screwdriver. Refer to *Figure 26*. Then lift motor out of mounting bracket.

NOTE: When replacing motor, the motor switch location should be at 10 o'clock position with the positioning tab on the motor engaged with the notch in the motor bracket. Refer to *Figure 26*. Refer to appropriate wiring diagram when rewiring motor switch leads.

Motor Switch Replacement
   (1) Remove two screws holding switch to motor.
   (2) Disconnect internal motor lead wires from switch terminals.

NOTE: Refer to SECTION IX, "Internal Wiring of Dryer Motor Switch," when rewiring the internal switch wires.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

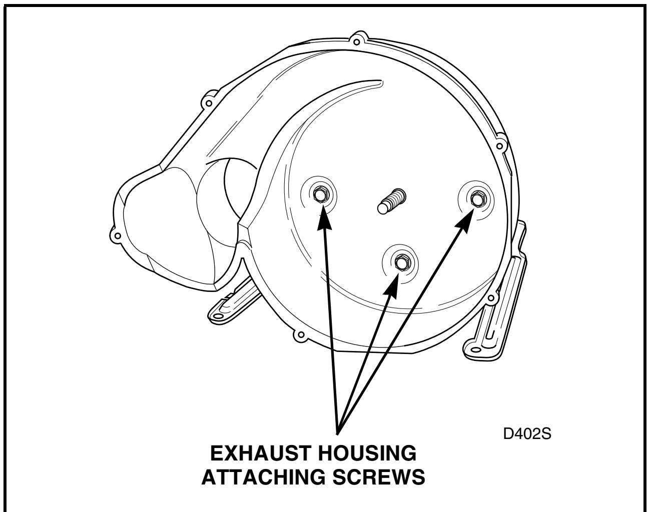


Figure 27

48. CYLINDER LIGHT

Open loading door and remove bulb through top opening in the front bulkhead by turning bulb to the left. Refer to *Figure 28*.

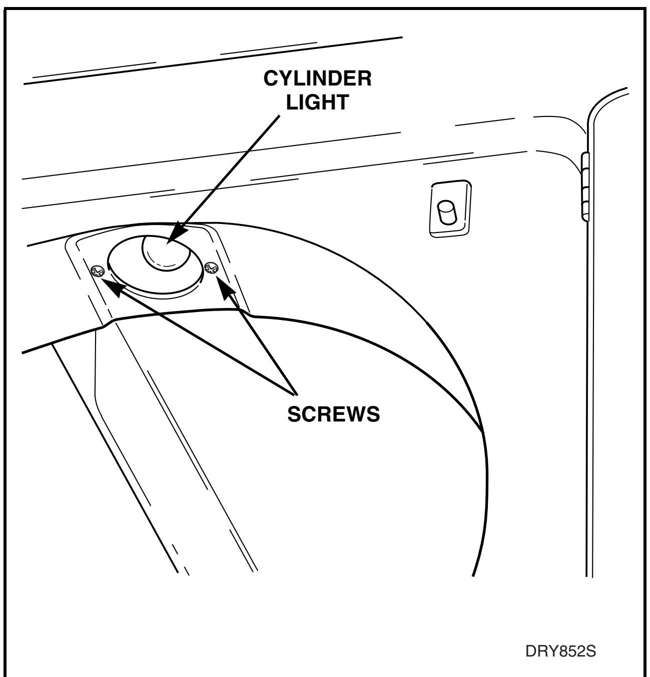


Figure 28

49. CYLINDER LIGHT RECEPTACLE

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Disconnect wires from the light receptacle terminals.
e. Remove two screws holding receptacle to front bulkhead. Refer to *Figure 28*.

50. CABINET TOP

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Remove six screws (three top and three bottom) holding the hood assembly to the control hood rear panel and cabinet top.
e. Disconnect the wires from all components and ground wire in control hood, and screw holding ground wire to top. Push harness down through opening in cabinet top. (Replace control hood or set aside to prevent damage.)

NOTE: Refer to the appropriate wiring diagram when rewiring components.

f. Remove two cabinet top hold-down screws. Refer to *Figure 30*.
g. Lift front of cabinet top and disengage from hinges on rear of cabinet. Refer to *Figure 29*.
h. Remove control hood rear panel when replacing cabinet top.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

NOTE: When servicing, cabinet top may be raised and hinged on the rear hold-down brackets, or supported against wall behind dryer.

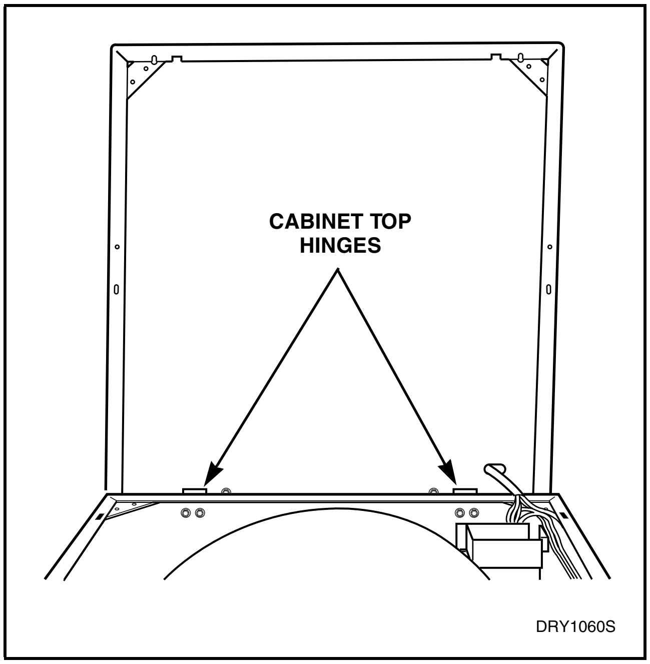


Figure 29

51. FRONT BULKHEAD ASSEMBLY

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Disengage belt from motor and idler pulleys. Refer to *Figure 24*
e. If present, disconnect cylinder light wires.
f. Remove four screws holding bulkhead to front flange of cabinet and lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 30*.

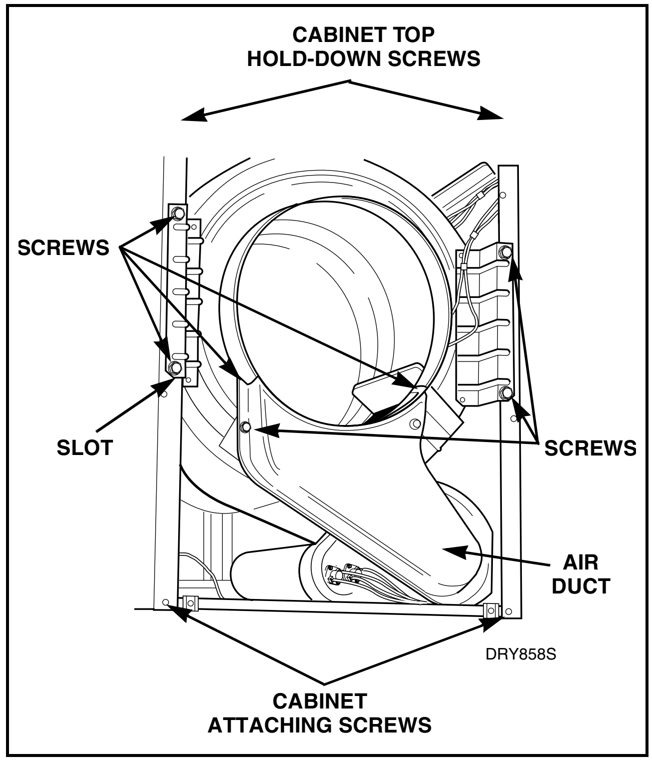


Figure 30

NOTE: During reinstallation of front bulkhead, be sure that air duct is properly positioned with the flange inside of the felt seal on the exhaust fan cover.

g. **Cylinder Glide** (Refer to *Figure 31*)
   (1) Remove two screws holding glide to each glide bracket.
h. **Front Cylinder Seal** (Refer to *Figure 31*)
   (1) Pull front cylinder seal from under flanged edge of bulkhead.
   (2) Carefully unhook spring from seal strap.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

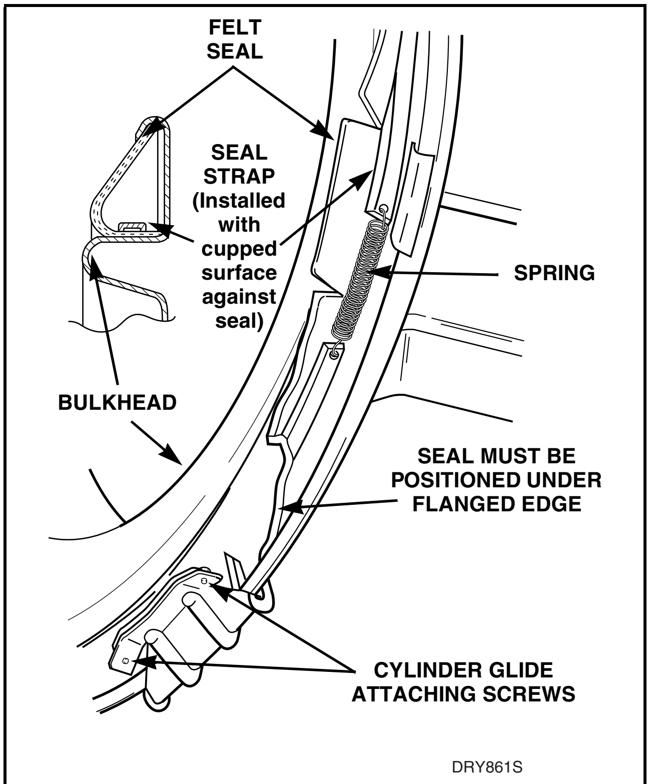


Figure 31

IMPORTANT: The seal can be adhered to the bulkhead using 3M-1300 Sealant (obtain locally). This is accomplished by applying a bead of 3M-1300 Sealant around the entire flanged area where the felt seal contacts the bulkhead. Strap must be installed with cupped surface down against the seal to hold the felt seal more firmly in place on the bulkhead. Seal must be held securely under strap and folded under flanged edge around entire bulkhead.

52. CYLINDER BELT

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Disengage belt from motor and idler pulleys, *Figure 24*.
e. If present, disconnect cylinder light wires.
f. Remove four screws holding bulkhead to front flange of cabinet. Lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 30*.

IMPORTANT: During reinstallation of front bulkhead, be sure that air duct is properly positioned with the flange inside of the felt seal on the exhaust fan cover.

g. While supporting cylinder, carefully remove belt off cylinder.

NOTE: When installing belt, be sure belt is properly installed on motor and idler pulleys, and is on the correct side of the idler lever. Refer to *Figure 24*. Belt must be positioned around cylinder between center and rear baffle screws with the ribbed surface against the cylinder. After installing belt, rotate cylinder manually to check that belt is properly aligned.

53. CYLINDER ASSEMBLY

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Disengage belt from motor and idler pulleys. Refer to *Figure 24*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

NOTE: When installing belt, be sure belt is properly installed on motor and idler pulleys, and is on the correct side of the idler lever. Refer to *Figure 24*. Belt must be positioned around cylinder between center and rear baffle screws with the ribbed surface against the cylinder. After installing belt, rotate cylinder manually to check that belt is properly aligned.

e. If present, disconnect cylinder light wires.
f. Remove four screws holding bulkhead to front flange of cabinet. Lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 30*.

IMPORTANT: During reinstallation of front bulkhead, be sure that air duct is properly positioned with the flange inside of the felt seal on the exhaust fan cover.

g. Loosen two cabinet top hold-down screws. Refer to *Figure 30*.
h. Manually rotate cylinder until one of the baffles is at the 6 o'clock position and carefully remove cylinder out through front of dryer.

NOTE: On models using unpainted, corrosion resistant, coated steel cylinder, the cylinder must be installed with the side marked "FRONT" or the arrow pointing toward the front of the dryer.

i. **Baffle**s
   (1) Remove screws holding baffles to cylinder. Refer to *Figure 32*.

IMPORTANT: On models using unpainted, corrosion resistant, coated steel cylinder, the elongated baffle must be installed to cover the cylinder seam weld. Refer to *Figure 32*.

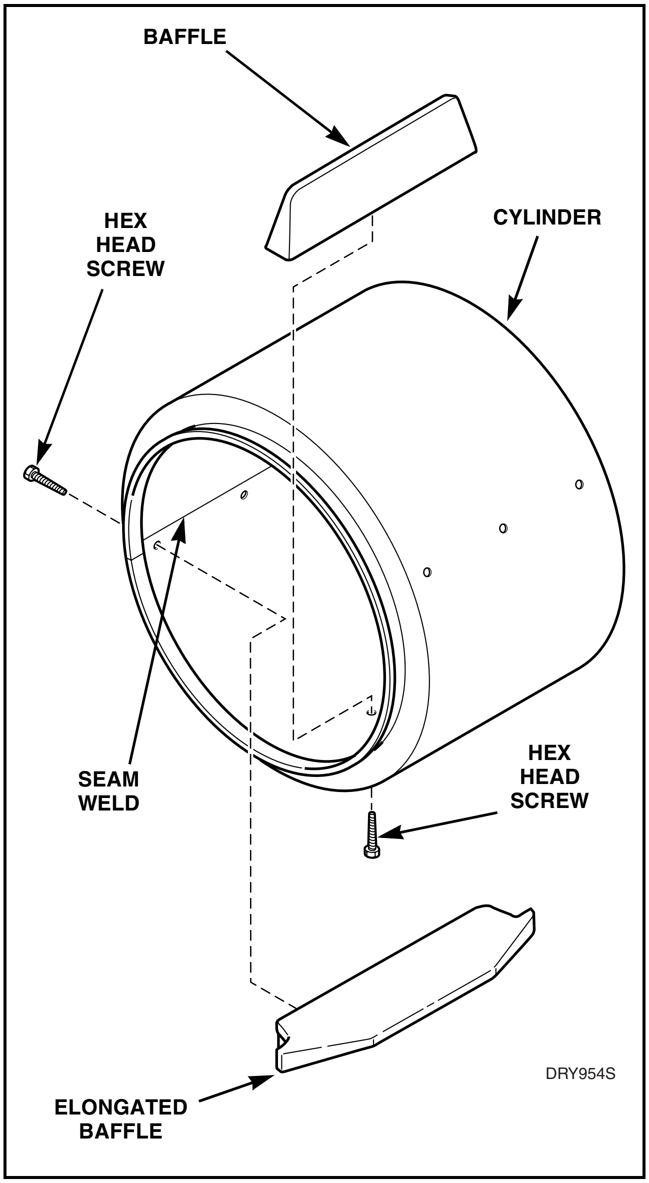


Figure 32

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

54. REAR SEAL

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Remove two cabinet top hold-down screws. Refer to *Figure 30*.
e. Raise front of cabinet top, hinging it on the rear hold-down brackets. Refer to *Figure 29*.

NOTE: When servicing, cabinet top may be raised and hinged on the rear hold-down brackets, or supported against the wall behind the dryer.

f. Disengage belt from motor and idler pulleys. Refer to *Figure 24*.

NOTE: When installing belt, be sure belt is properly installed on motor and idler pulleys, and is on the correct side of the idler lever. Refer to *Figure 24*. Belt must be positioned around cylinder between center and rear baffle screws with the ribbed surface against the cylinder. After installing belt, rotate cylinder manually to check that belt is properly aligned.

g. If present, disconnect cylinder light wires.
h. Remove four screws holding bulkhead to front flange of cabinet. Lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 30*.

IMPORTANT: During reinstallation of front bulkhead, be sure that air duct is properly positioned with the flange inside of the felt seal on the exhaust fan cover.

i. Manually rotate cylinder until one of the baffles is at the 6 o'clock position and carefully remove cylinder out through front of dryer.

NOTE: On models using unpainted, corrosion resistant, coated steel cylinder, the cylinder must be installed with side marked "FRONT" or the arrow pointing toward the front of the dryer.

j. Pull rear cylinder seal from under flanged edge of bulkhead. Refer to *Figure 31*.
k. Carefully unhook spring from the seal strap. Refer to *Figure 31*.

IMPORTANT: Seal can be adhered to the bulkhead using 3M-1300 Sealant (obtain locally). This is accomplished by applying a bead of 3M-1300 Sealant around the entire flanged area where the felt seal contacts the bulkhead. Strap must be installed with cupped surface down against the seal to hold the felt seal more firmly in place on the bulkhead. Seal must be held securely under strap and folded under flanged edge around entire bulkhead.

55. CYLINDER ROLLERS

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.
b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.
c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Remove belt from motor and idler pulleys. Refer to *Figure 24*.
e. If present, disconnect the cylinder light wires.
f. Remove four screws holding bulkhead to front flange of cabinet. Lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 30*.

IMPORTANT: During reinstallation of front bulkhead, be sure that air duct is properly positioned with the flange inside of the felt seal on the exhaust fan cover.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

g. Pull cylinder forward, allowing rear of cylinder to drop down, exposing rollers. Refer to *Figure 33*.

h. Refer to *Figure 33* for removal of roller from roller shaft.

i. To remove roller shaft, remove two screws holding roller bracket to rear bulkhead, then remove locknut holding shaft to bracket.

56. REAR BULKHEAD AND HEATER BOX ASSEMBLIES

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.

b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.

c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

d. Disengage belt from motor and idler pulleys. Refer to *Figure 24*.

NOTE: When reinstalling belt, be sure belt is properly installed on motor and idler pulleys, and is on the correct side of the idler lever. Refer to *Figure 24*. Belt must be positioned around cylinder between center and rear baffle screws with the ribbed surface against the cylinder. After installing belt, rotate cylinder manually to check that belt is properly aligned.

e. If present, disconnect the cylinder light wires.

f. Remove four screws holding bulkhead to front flange of cabinet. Lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 30*.

IMPORTANT: During reinstallation of front bulkhead, be sure that air duct is properly positioned with the flange inside of the felt seal on the exhaust fan cover.

g. Loosen two cabinet top hold-down screws. Refer to *Figure 30*.

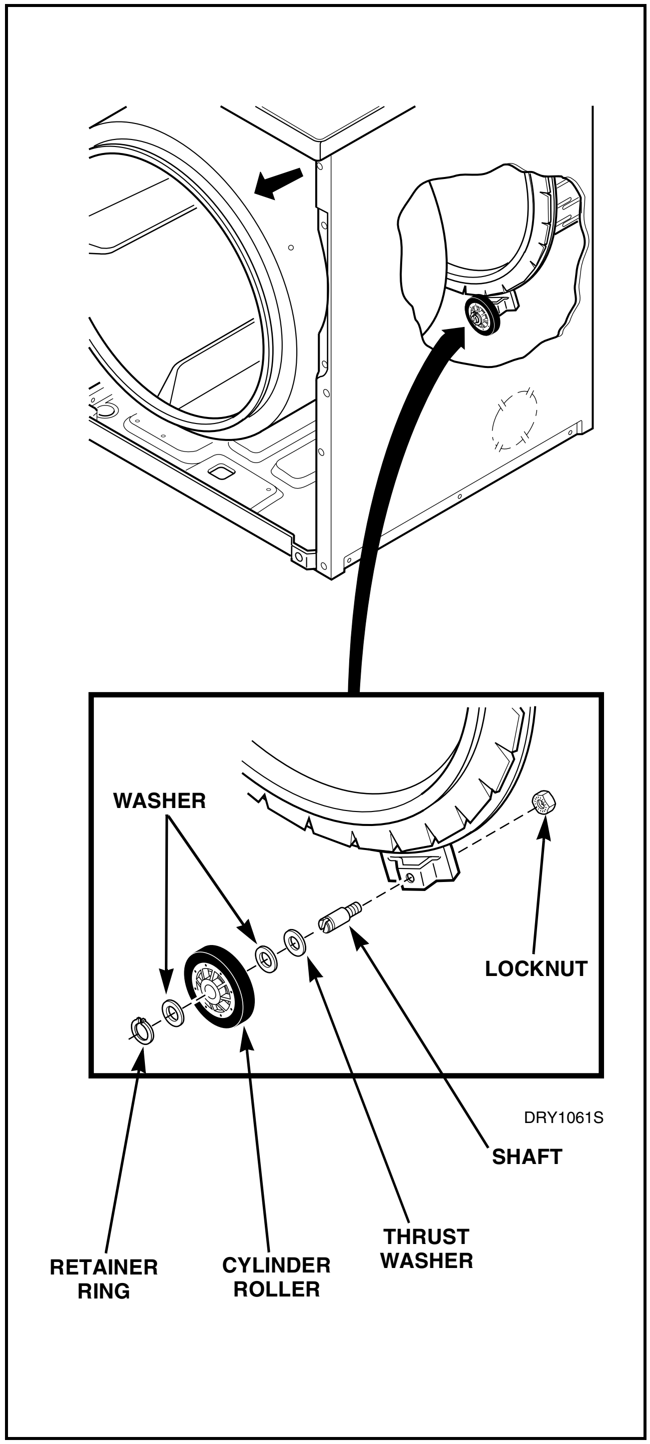


Figure 33

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

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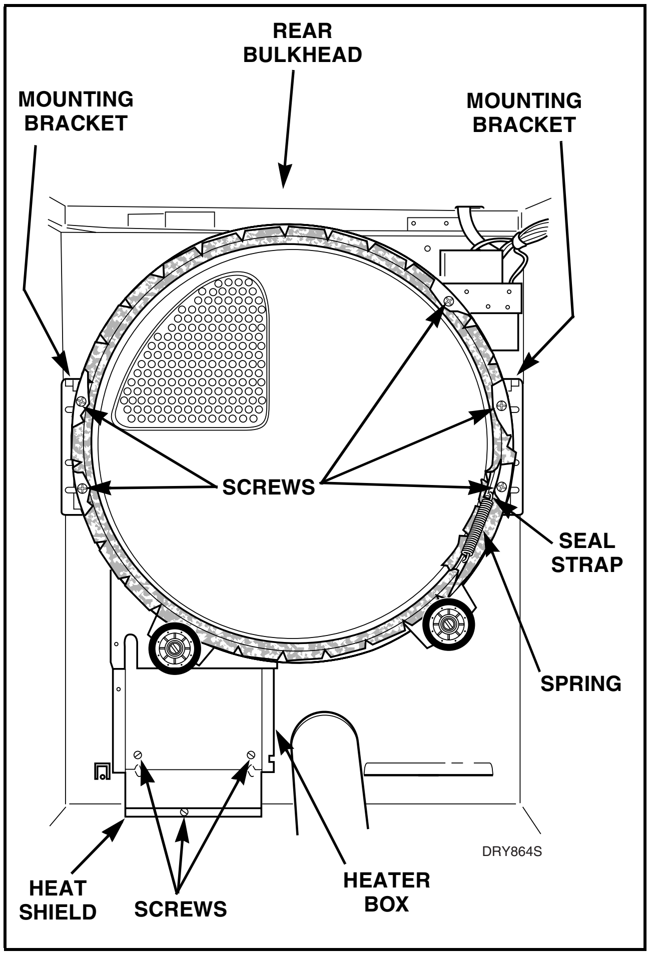


Figure 34

h. Manually rotate cylinder until one of the baffles is at the 6 o'clock position and carefully remove cylinder out through front of dryer.

NOTE: On models using unpainted, corrosion resistant, coated steel cylinder, the cylinder must be installed with side marked "FRONT" or the arrow pointing toward the front of the dryer.

i. **Gas Models**
   (1) Disconnect igniter wires at disconnect blocks, sensor wires from sensor terminals, and wires from gas valve coils at the quick disconnect blocks. Refer to *Figure 14*.
   (2) Remove screw from right side of burner housing, holding burner tube in place. Refer to *Figure 14*.
   (3) Gently move burner tube toward rear of dryer to disengage tab from slot on left side of burner housing. Refer to *Figure 18*.
   (4) Carefully rotate burner tube and igniter **counterclockwise** so tab is at 8 o'clock position.
   (5) Move air shutter end of burner tube slightly to right and CAREFULLY remove burner tube and igniter assembly out through front of dryer.

IMPORTANT: The igniter is very fragile. Be careful not to damage it during removal.

   (6) Remove screw holding burner housing to heat shroud. Refer to *Figure 18*.
   (7) Remove screw holding front of burner housing to dryer base and remove housing out through front of dryer. Refer to *Figure 14*.
   (8) Remove four screws holding shroud to heater box and remove shroud out through front of dryer. Refer to *Figure 18*.

j. **Electric Models**
   (1) Remove two screws holding heater assembly to heater box, then pull heater assembly down and away from heater box. Refer to *Figure 19*.

k. Remove screw holding heat shield to dryer base. Refer to *Figure 34*.

l. Remove one screw holding rear bulkhead to terminal block bracket. While supporting bulkhead, remove the four screws holding rear bulkhead to mounting brackets, then lift complete assembly out of dryer. Refer to *Figure 34*.

m. **To remove heat shield from heater box:**
   (1) Remove two screws holding heat shield to heater box. Refer to *Figure 34*.

n. **To remove heater box from rear bulkhead:**
   (1) Refer to *Figure 35* for removal.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

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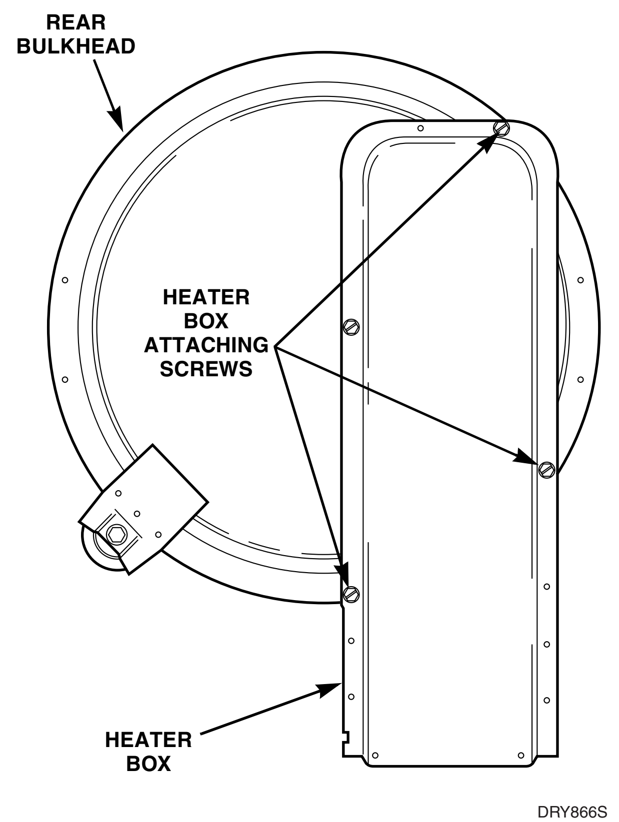


Figure 35

o. **Rear Mounting Brackets:**

(1) Remove five screws holding rear mounting brackets to rear of dryer cabinet. Refer to *Figure 22*.

57. TERMINAL BLOCK OR POWER CORD

a. **Terminal Block – Electric Models (Refer to *Figure 33*)**

Through Serial No. S6271975XG:

(1) Remove access plate on rear of cabinet.

(2) Remove all wires from terminal block.

NOTE: Refer to appropriate wiring diagram when rewiring terminal block.

(3) Remove screws holding terminal block to bracket.

NOTE: Do not let terminal block insulation drop when removing the block. Insulation must be in place when reinstalling block.

Starting Serial No. S6271976XG:

(1) Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.

(2) Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.

(3) Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to the appropriate wiring diagram when rewiring the switch.

(4) Remove two cabinet hold-down screws. Refer to *Figure 30*.

(5) Lift cabinet top to a vertical position by hinging it on the rear hold-down brackets. Refer to *Figure 36*.

NOTE: When servicing, cabinet top may be raised and hinged on the rear hold-down brackets, or supported against wall behind the dryer.

(6) Remove all wires from terminal block.

NOTE: Refer to appropriate wiring diagram when rewiring terminal block.

(7) Remove screw holding terminal block to bracket. Refer to *Figure 36*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

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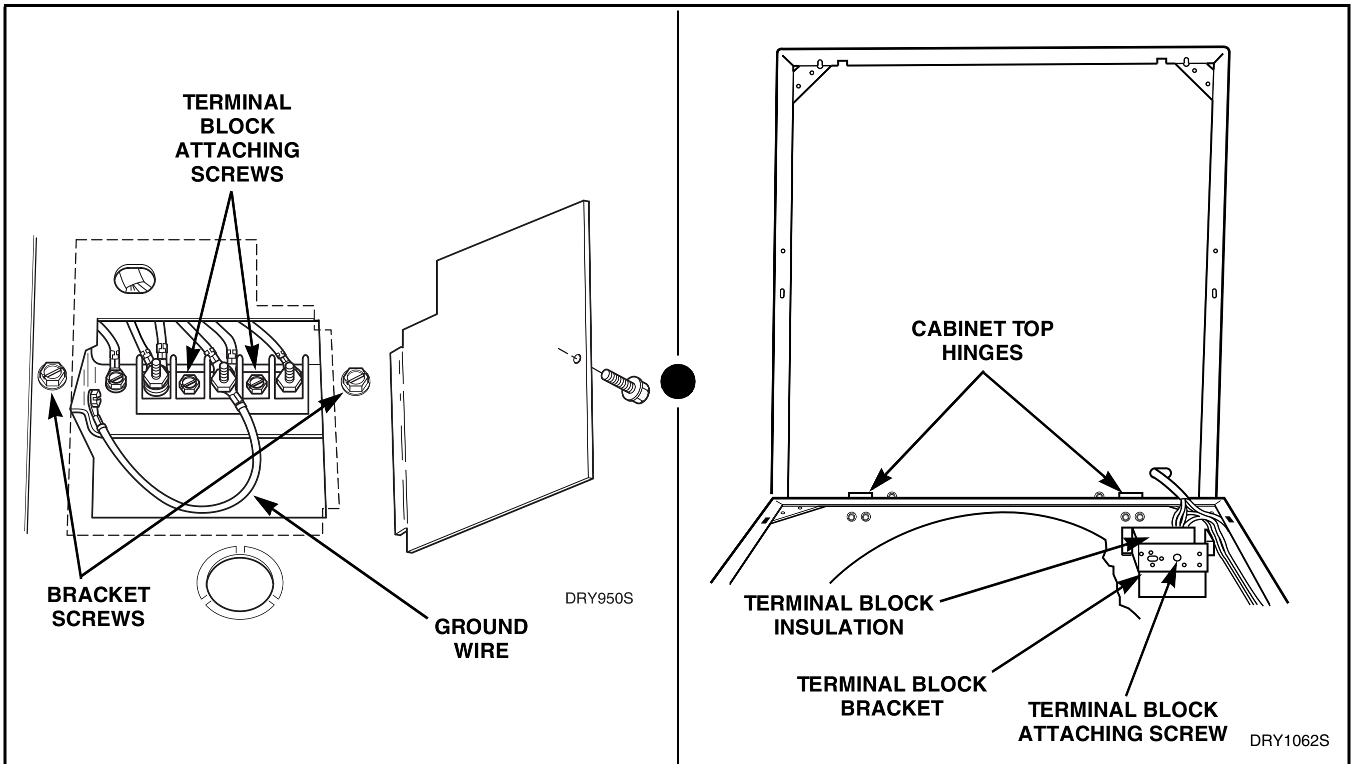
NOTE: Do not let terminal block insulation drop when removing the block. Insulation must be in place when reinstalling block.

b. **Power Cord – Gas Models**

(1) Remove access plate on rear of cabinet.
(2) Remove strain relief.
(3) Remove screw holding power cord ground wire to terminal block bracket.

NOTE: Reconnect ground wire into same hole in bracket when reinstalling power cord.

(4) Disengage strain relief holding power cord in dryer cabinet.
(5) Disconnect power cord wires at disconnect blocks, then remove power cord from rear of dryer cabinet.



Through Serial No. S6271975XG | **Starting Serial No. S6271976XG**

Figure 36

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

58. CABINET

a. Remove six screws (three top and three bottom) holding the hood assembly to the control hood rear panel and cabinet top.

b. Disconnect the wires from the component parts and ground wire in control hood and screw holding ground wire to top.

NOTE: Refer to the appropriate wiring diagram when rewiring the component parts.

c. Set control hood assembly out of the way.

d. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.

e. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.

f. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

g. Remove two cabinet top hold-down screws. Refer to *Figure 30*.

h. Lift cabinet top to a vertical position by hinging it on the rear hold-down brackets. Refer to *Figure 36*.

NOTE: When servicing, cabinet top may be raised and hinged on the rear hold-down brackets or supported against wall behind the dryer.

i. Carefully withdraw wire harness through hole in cabinet top and lift the cabinet top assembly off the hold-down brackets and set to the side. Refer to *Figure 36*.

j. Disengage belt from motor and idler pulleys. Refer to *Figure 24*.

NOTE: When reinstalling belt, be sure belt is properly installed on motor and idler pulleys, and is on the correct side of the idler lever, *Figure 24*. Belt must be positioned around cylinder between center and rear baffle screws with the ribbed surface against the cylinder. After installing belt, rotate cylinder manually to check that belt is properly aligned.

k. If present, disconnect the cylinder light wires.

l. Remove four screws holding bulkhead to front flange of cabinet. Lift complete bulkhead assembly out of slots in cabinet. Refer to *Figure 30*.

IMPORTANT: During reinstallation of front bulkhead, be sure that air duct is properly positioned with the flange inside of the felt seal on the exhaust fan cover.

m. Manually rotate cylinder until one of the baffles is at the 6 o'clock position and carefully remove cylinder out through front of dryer.

NOTE: On models using unpainted, corrosion resistant, coated steel cylinder, the cylinder must be installed with the side marked "FRONT" or the arrow pointing toward the front of the dryer.

n. **Gas Models**

(1) Disconnect igniter wires at disconnect blocks, sensor wires from sensor terminals, and wires from gas valve coils at the quick disconnect blocks. Refer to *Figure 14*.

(2) Remove screw from right side of burner housing, holding burner tube in place. Refer to *Figure 21*.

(3) Gently move burner tube toward rear of dryer to disengage tab from slot on left side of burner housing. Refer to *Figure 18*.

(4) Carefully rotate burner tube and igniter **counterclockwise** so tab is at 8 o'clock position.

(5) Move air shutter end of burner tube slightly to right and CAREFULLY remove burner tube and igniter assembly out through front of dryer.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

IMPORTANT: The igniter is very fragile. Be careful not to damage it during removal.

(6) Remove screw holding burner housing to heat shroud. Refer to *Figure 18*.

(7) Remove screw holding front of burner housing to dryer base and remove housing out through front of dryer. Refer to *Figure 14*.

(8) Remove four screws holding shroud to heater box and remove shroud out through front of dryer. Refer to *Figure 18*.

o. **Electric Models**

(1) Remove two screws holding heater assembly to heater box, then pull heater assembly down and away from heater box. Refer to *Figure 19*.

p. Remove screw holding heat shield to dryer base. Refer to *Figure 34*.

q. Remove one screw holding rear bulkhead to terminal block bracket. While supporting bulkhead, remove five screws holding rear mounting brackets to rear of dryer cabinet and remove the assembly out of the dryer. Refer to *Figure 34*.

r. Remove screw holding bracket on exhaust duct to rear of dryer cabinet and pull duct out through rear of cabinet. Refer to *Figure 22*.

s. Remove two screws from each rear cabinet top hold-down bracket (hinges). Refer to *Figure 36*.

t. Remove screw holding access plate and remove plate. Refer to *Figure 22*.

u. Remove two screws holding terminal block bracket to cabinet. Refer to *Figure 36*.

v. Remove wire harness clips.

w. Remove guide lugs and screws.

x. Remove two screws from front edge at each side of cabinet. Refer to *Figure 30*. Then remove remaining screws from around the bottom of cabinet and lift cabinet off base.

59. BASE

a. Remove two screws from the bottom edge of the front panel. Refer to *Figure 12*.

b. Swing the bottom of the panel away from the dryer to disengage hold-down clips and guide lugs from cabinet top. Refer to *Figure 12*.

c. Disconnect wires from door switch. Refer to *Figure 13*.

NOTE: Refer to appropriate wiring diagram when rewiring switch.

d. **Gas Models**

(1) Disconnect igniter wires at disconnect blocks, sensor wires from sensor terminals, and wires from gas valve coils at the quick disconnect blocks. Refer to *Figure 14*.

(2) Close main gas shut-off valve and gas shut-off valve inside of dryer. Refer to *Figure 14*.

(3) Disconnect gas line to dryer.

(4) Remove three screws holding gas valve bracket to base and remove valve with lead-in pipe attached. Refer to *Figure 18*.

(5) Remove screw from right side of burner housing, holding burner tube in place. Refer to *Figure 14*.

(6) Gently move burner tube toward rear of dryer to disengage tab from slot on left side of burner housing. Refer to *Figure 18*.

(7) Carefully rotate burner tube and igniter **counterclockwise** so tab is at 8 o'clock position and CAREFULLY remove burner tube and igniter assembly out through front of dryer.

IMPORTANT: The igniter is very fragile. Be careful not to damage it during removal.

(8) Remove screw holding front of burner housing to dryer base. Refer to *Figure 19*.

(9) Remove four screws holding shroud to heater box and remove shroud and burner housing out through front of dryer. Refer to *Figure 18*.

e. **Electric Models**

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

(1) Remove two screws holding heater assembly to heater box, then pull heater assembly down and away from heater box. Refer to *Figure 19*.

(2) Disconnect wire harness from limit thermostat nd thermal fuse. Refer to *Figure 19*.

f. Remove screw holding heat shield to dryer base. Refer to *Figure 34*.

g. Remove lint filter. Refer to *Figure 10*.

IMPORTANT: When installing the filter, be sure to place the filter into the front air duct with the word "FRONT" facing the front of the dryer.

h. Remove screws holding air duct to front bulkhead and remove air duct. Refer to *Figure 21*.

NOTE: When reassembling, be sure felt seal on exhaust fan cover makes air tight seal on flange of air duct. Refer to *Figure 20*.

i. Disconnect wires from thermistor and/or thermostat or thermostat and heater. Refer to *Figure 20*.

NOTE: Refer to appropriate wiring diagram when rewiring thermistor and/or thermostat or thermostat and heater.

j. Remove cylinder belt from idler and motor pulleys. Refer to *Figure 24*.

k. Remove two screws holding motor mounting bracket to dryer base. Refer to *Figure 23*. Then pull complete assembly out through front of dryer.

l. Disconnect wires from motor switch and remove harness clip from motor bracket. Then, set motor and exhaust assembly off to the side. Refer to *Figure 26*.

m. Remove screw holding bracket on exhaust duct to rear of cabinet and pull duct out through rear of cabinet. Refer to *Figure 22*.

IMPORTANT: When reinstalling motor and exhaust assembly, be sure wire harness on right side is clipped to motor mounting bracket and is routed along dryer base (between motor mounting bracket and right side of cabinet). Refer to *Figure 23*. Tab on rear of motor mounting bracket must be slid into slot in dryer base.

n. Remove two screws from front edge at each side of cabinet. Refer to *Figure 30*. Then remove remaining screws from around bottom of cabinet and lift cabinet off base.

o. Remove leveling legs and locknuts from base and reinstall on new base.

Section 6
Adjustments

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

60. LEVELING LEGS
Refer to *Figure 37*

NOTE: Dryer should be installed on a solid and level floor. DO NOT install the dryer on a weak or spongy floor.

a. Place dryer in position, loosen locknuts and adjust the legs until dryer is level.
b. Keep dryer as close to the floor as possible. All four legs must rest firmly on the floor so weight of the dryer is evenly distributed. The dryer MUST NOT rock.
c. After the dryer has been leveled, tighten the locknuts securely against the bottom of the dryer base.

NOTE: If these locknuts are not tight, the dryer will not stay level during operation.

d. Place a rubber cup (supplied with dryer) under each of the leveling legs.

IMPORTANT: DO NOT move the dryer at any time unless locknuts are securely tightened and the dryer is completely assembled. DO NOT slide the dryer across the floor once the leveling legs have been extended as the legs and base could become damaged.

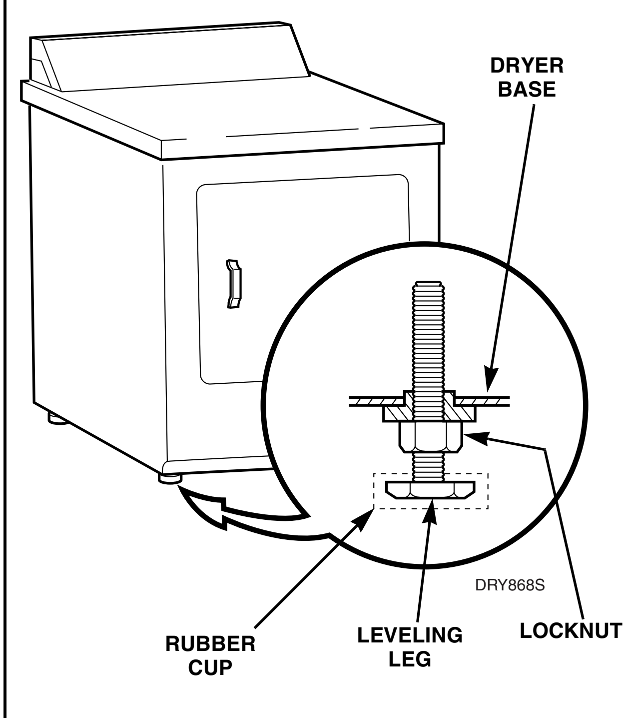


Figure 37

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

61. BURNER FLAME — Gas Models
Refer to *Figure 38*

a. Close loading door, start the dryer in a heat setting (refer to the Operating Instructions supplied with the dryer); the dryer will start, the igniter will glow red and the main burner will ignite.
b. Allow dryer to operate for approximately five minutes, then open the access door and loosen the air shutter lockscrew.
c. Turn air shutter to the right or left to obtain a soft, uniform blue flame. (A lazy, orange-tipped flame indicates lack of air. A harsh, roaring, very blue flame indicates too much air.)
d. After proper flame is obtained, tighten air shutter lockscrew securely.
e. **Be sure and observe** at least two complete ignition and burn cycles before reinstalling the access door.
f. Reinstall the access door.

WARNING

For personal safety, the access door must be in place during normal operation.

After the dryer has operated for approximately three minutes, exhaust air or exhaust pipe should be warm.

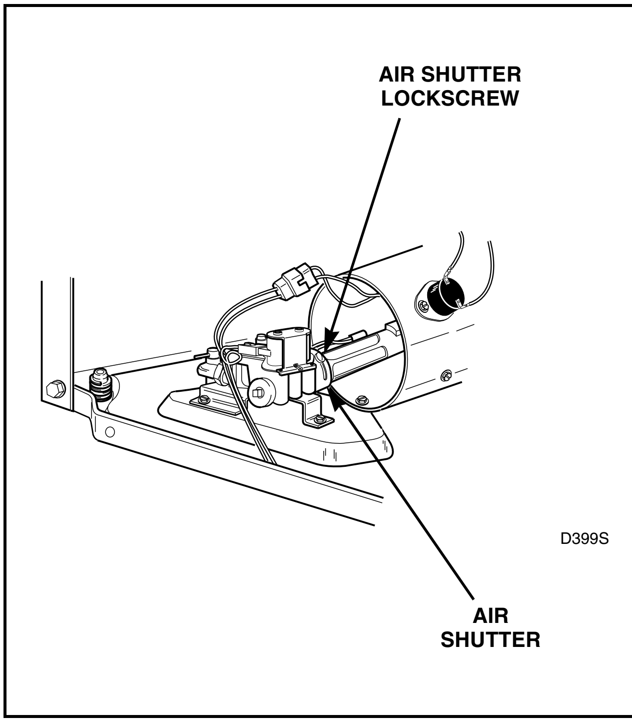


Figure 38

Section 7
Gas Burner Conversion Procedures
For converting dryers equipped for Natural gas to L.P. gas

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

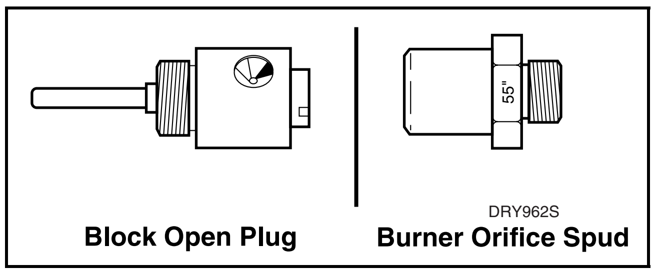
WARNING

This conversion kit is to be installed by AUTHORIZED DEALERS or DISTRIBUTORS on their premises and in accordance with the manufacturer's instructions and all codes and requirements of the authority having jurisdiction. Failure to follow instructions could result in serious injury or property damage. The qualified agency performing this work assumes responsibility for this conversion.

W312

401P3 L.P. Gas Conversion Kit consists of:

1	- 58754	Block - Open Plug
1	- 58755	Burner Orifice Spud (Metal stamped #55)
1	- 60515	Conversion Plate
1	- 60517	Valve Converted to L.P. Gas Sticker
2	- 60520	L.P. Gas Stickers



Gas Input - 20,000 BTU/HR

NOTE: When converting the dryer gas valve to L.P. gas, be sure the incoming gas supply line is equipped with a pressure regulator (located ahead of the dryer) that will maintain the gas supply to the dryer at 10 ± 1.5 inches (25.4 ± 3.81 cm) water column pressure and a vent to the outdoors must be provided. Remove pressure tap pipe plug and check gas pressure by connecting a "U" tube manometer (or similar pressure gauge) to the pressure tap. Refer to *Figure 39.*

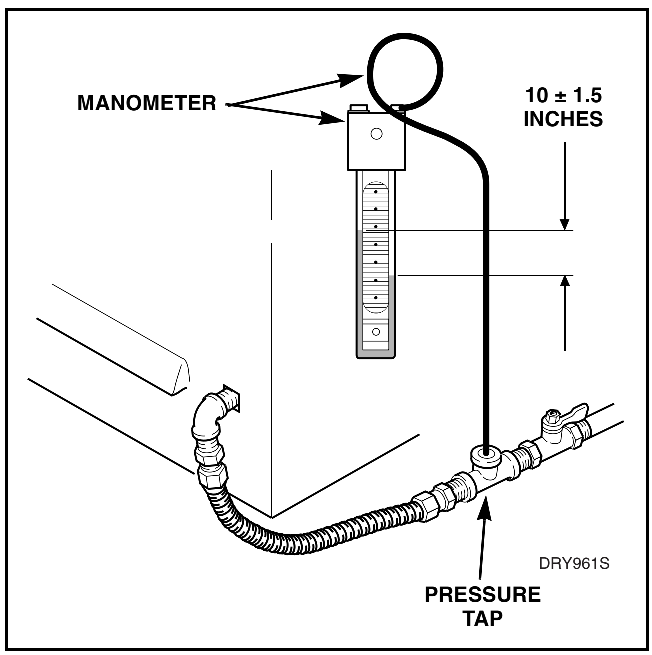


Figure 39

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

62. INSTALLING THE NO. 401P3 KIT

WARNING

To reduce the risk of electrical shock, disconnect electrical power to the dryer before servicing the dryer.

a. Apply thumb pressure to the right side of access door. Refer to *Figure 40*. When door opens, move door to the left to disengage from door supports.

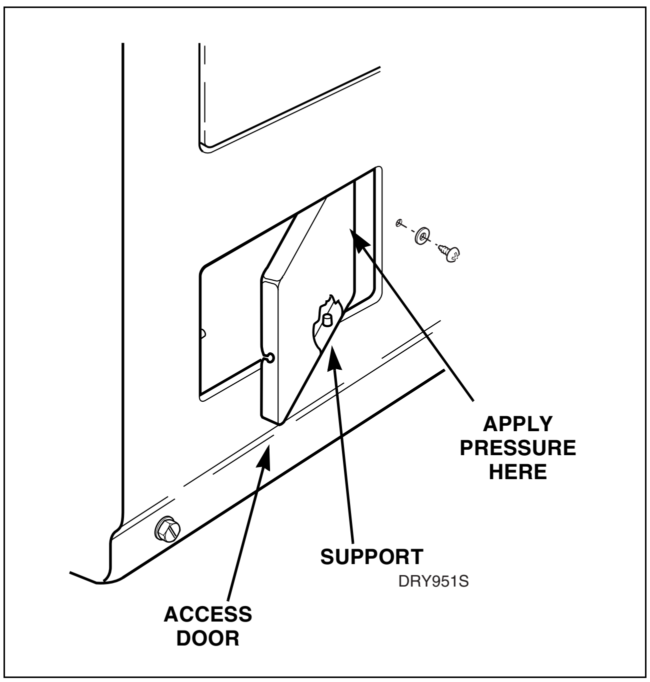


Figure 40

WARNING

To reduce the risk of fire and explosion, reach in through access door opening and turn the gas line shut-off valve handle to the closed position. Refer to *Figure 41*.

b. Disconnect igniter wires at quick disconnect blocks. Refer to *Figure 41*.

c. Remove hex head screw holding burner tube and igniter in place. Refer to *Figure 41*.

d. Carefully move burner tube toward rear of dryer, far enough to permit removal of burner orifice spud from gas valve.

NOTE: Tab on burner tube may have to be removed from slot in burner housing to obtain enough clearance.

e. Turn burner orifice spud out of gas valve and install No. 58755 L.P. Burner Orifice Spud (metal stamped #55). Torque new burner orifice spud to 30 inch-pounds (3.4 N-m).

f. Reinstall burner tube, tighten hex head screw firmly and reconnect igniter leads.

g. Remove vent screw and install No. 58754 Block-Open Plug. Refer to *Figure 41*.

h. Install No. 60517 “Valve Converted to L.P. Gas” Sticker to top side of gas valve so it covers the gas valve part number.

i. Sign and date each of the two No. 60520 L.P. Gas Stickers. Install one of the No. 60520 L.P. Gas Stickers over the top three lines of the old sticker on rear of cabinet. Refer to *Figure 42*. Then place the second sticker over the top three lines of the old sticker located on backside of access door. Refer to *Figure 40*.

j. Apply the No. 60515 Conversion Plate to the inside of the loading door opening above the nameplate. Refer to *Figure 43*.

k. Turn the gas line shut-off valve handle to the open position and connect electrical service. Refer to *Figure 41*.

l. Check gas valve pressure as follows:
   (1) Remove pressure tap pipe plug. Refer to *Figure 41*.
   (2) Connect a “U” tube manometer (or similar pressure gauge) to the pressure tap. Refer to *Figure 44*.
   (3) Start dryer, pressure should be 10 ± 1.5 inches (25.4, ± 3.8 cm). Refer to *Figure 41*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

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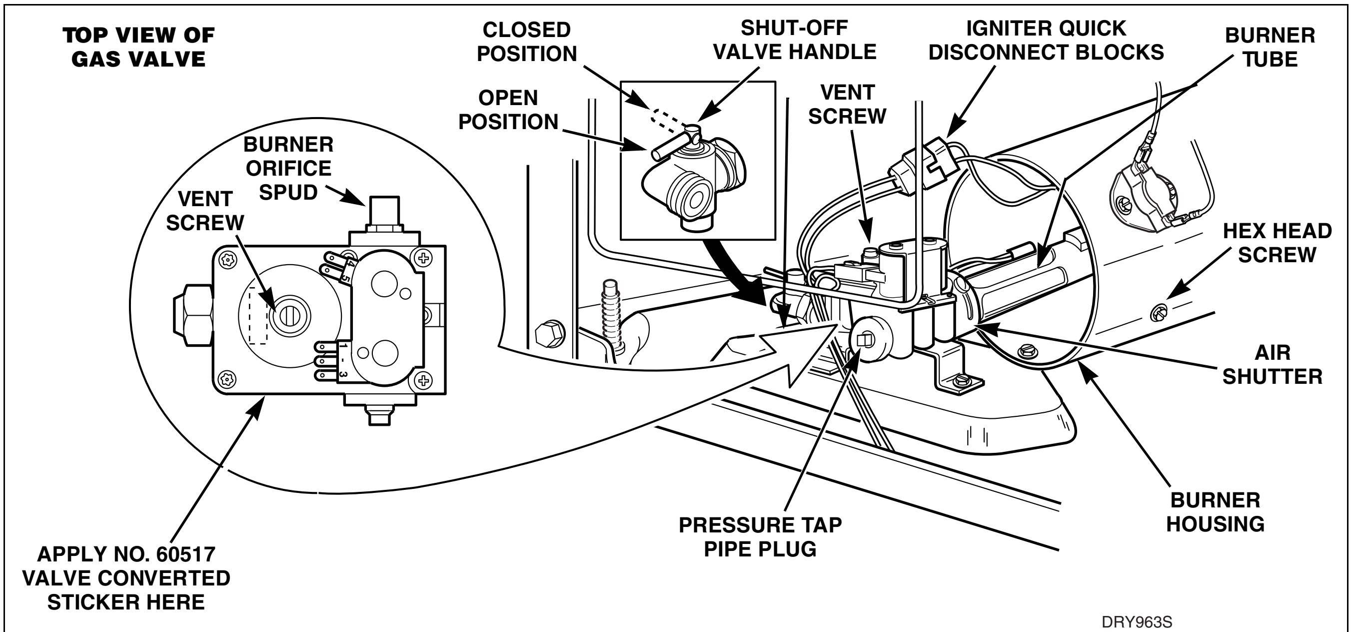


Figure 41

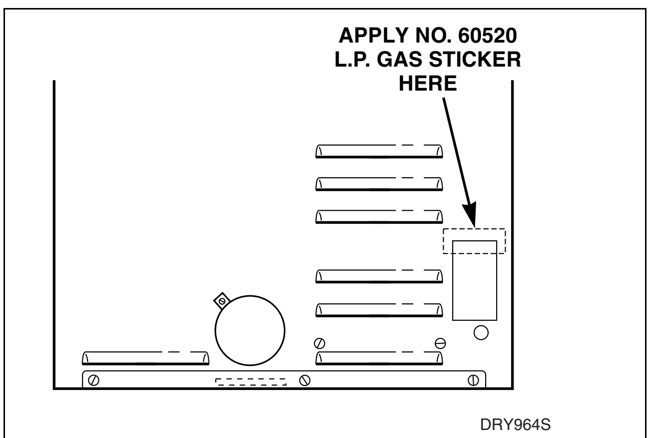


Figure 42

(4) Stop dryer and remove "U" tube and reinstall the pressure tap pipe plug. Refer to *Figure 41.*

m. Check the gas line connection for gas leaks with a soapy solution.

DANGER

To reduce the risk of an explosion or fire, do not use an open flame to check for gas leaks!

n. Make sure the dryer conversion has been completed. Recheck the following:
   (1) Installed correct orifice spud (#55), see step "e".
   (2) Installed block-open plug, see step "g".
   (3) Gas valve pressure must be 10 ± 1.5 inches (25.4 ± 3.8 cm), see step "l".
   (4) Installed four stickers, see steps "h", "i", and "j".

o. Start dryer and observe burner flame. Adjust air shutter to obtain a soft, uniform flame. (A lazy, orange tipped flame indicates lack of air. A harsh, roaring, very blue flame indicates too much air.) Adjust air shutter to obtain a soft uniform blue flame as follows:

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

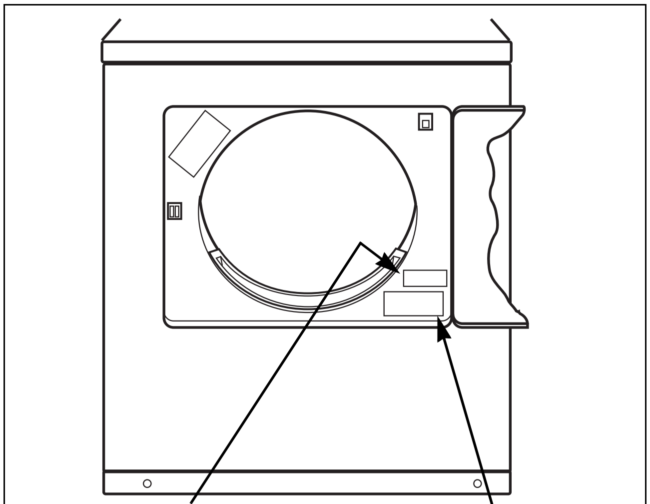


Figure 43

(1) Loosen air shutter lockscrew. Refer to *Figure 44*.
(2) Turn air shutter to the right or left as necessary to obtain proper flame intensity. Refer to *Figure 44*.
(3) After air shutter is adjusted for proper flame, tighten air shutter lockscrew firmly.

p. **Be sure and observe** at least two complete ignition and burn cycles before reinstalling access door.
q. Reinstall the access door and screw.

WARNING

For personal safety, access door must be in place during normal operation.

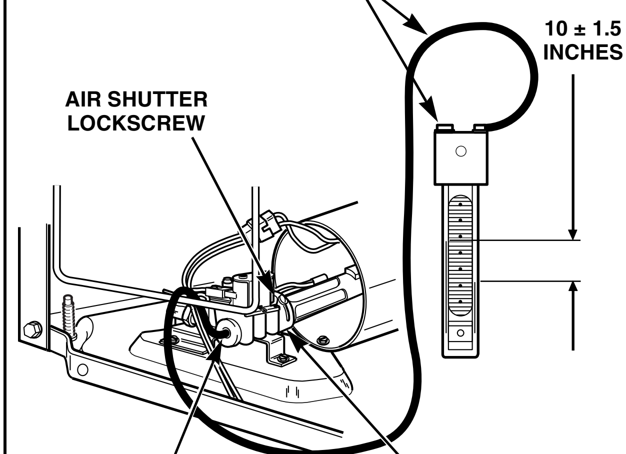


Figure 44

Gas Burner Conversion Procedures

For converting dryers equipped for L.P. gas to Natural gas

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

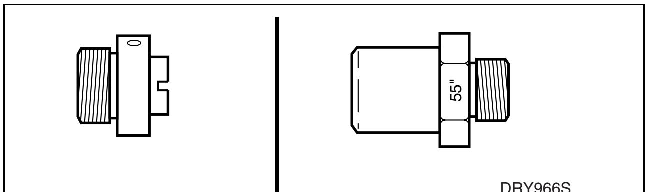
WARNING

This conversion kit is to be installed by AUTHORIZED DEALERS or DISTRIBUTORS on their premises and in accordance with the manufacturer's instructions and all codes and requirements of the authority having jurisdiction. Failure to follow instructions could result in serious injury or property damage. The qualified agency performing this work assumes responsibility for this conversion.

W312

402P3 Natural Gas Conversion Kit consists of:

1	- 58719	Burner Orifice Spud Metal stamped #44)
1	- 58768	Vent Screw
1	- 60514	Conversion Plate
1	- 60516	Valve Converted to Natural Gas Sticker
2	- 60521	Natural Gas Stickers



Gas Input - 20,000 BTU/HR

NOTE: When converting the dryer gas valve to Natural Gas, be sure the incoming gas supply line is equipped with a pressure regulator (located ahead of the dryer) that will maintain the gas supply to the dryer at 6.5 ± 1.5 inches (16.5 ± 3.81 cm) water column pressure and a vent to the outdoors must be provided. Remove pressure tap pipe plug and check gas pressure by connecting a "U" tube manometer (or similar pressure gauge) to the pressure tap. Refer to *Figure 45.*

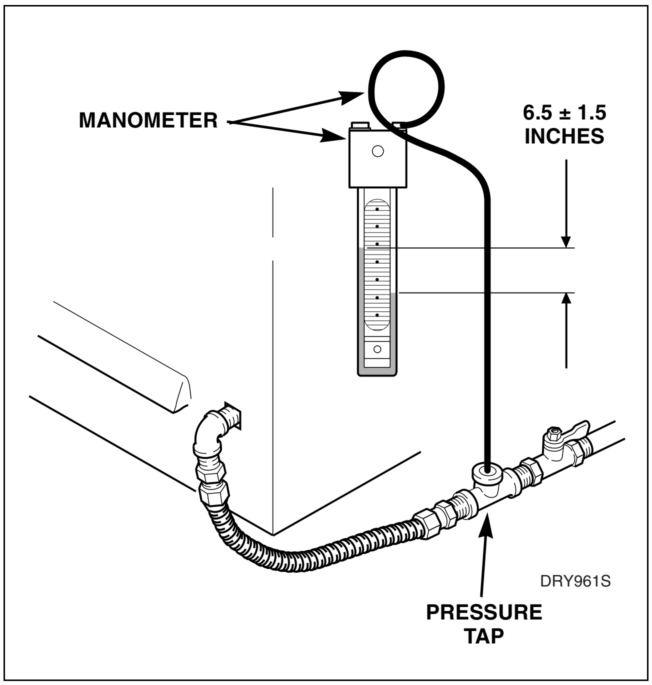


Figure 45

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

63. INSTALLING THE NO. 402P3 KIT

WARNING

To reduce the risk of electrical shock, disconnect electrical power to the dryer before servicing the dryer.

a. Apply thumb pressure to the right side of access door. Refer to *Figure 46*. When door opens, move door to the left to disengage from door supports.

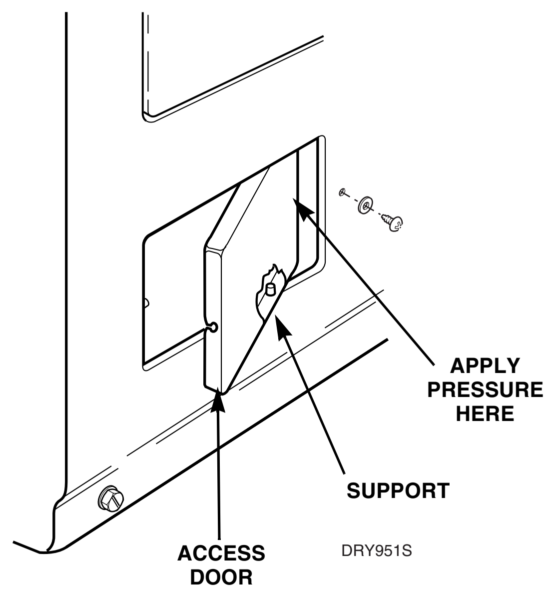


Figure 46

WARNING

To reduce the risk of fire and explosion, reach in through access door opening and turn the gas line shut-off valve handle to the closed position. Refer to *Figure 41*.

b. Disconnect igniter wires at quick disconnect blocks. Refer to *Figure 47*.

c. Remove hex head screw holding burner tube and igniter in place. Refer to *Figure 47*.

d. Carefully move burner tube toward rear of dryer, far enough to permit removal of burner orifice spud from gas valve.

NOTE: Tab on burner tube may have to be removed from slot in burner housing to obtain enough clearance.

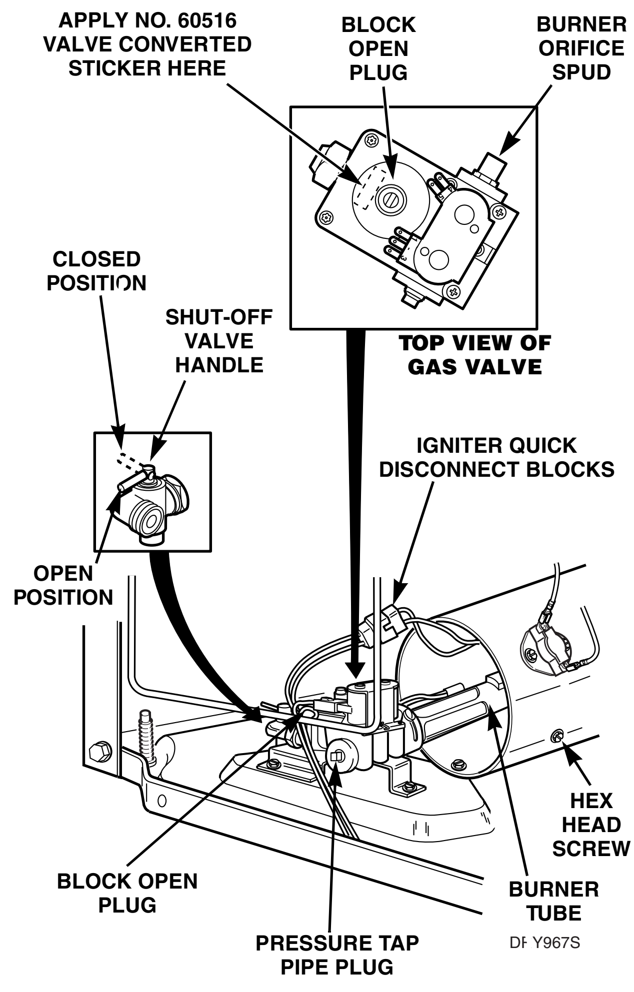


Figure 47

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

e. Turn burner orifice spud out of gas valve and install No. 58719 Natural Gas Burner Orifice Spud (metal stamped #44). Torque new burner orifice spud to 30 inch-pounds (3.4 N-m).

f. Reinstall burner tube, tighten hex head screw firmly and reconnect igniter leads.

g. Remove the block open plug and install No. 58768 Vent Screw. Refer to *Figure 47*.

h. Install No. 60516 "Valve Converted to Natural Gas" Sticker to top side of gas valve so it covers the gas valve part number. Refer to *Figure 47.*

i. Sign and date each of the two No. 60521 Natural Gas Stickers. Install one of the No. 60521 Natural Gas Stickers over the top three lines of the old sticker on rear of cabinet. Refer to *Figure 48*. Then place the second sticker over the top three lines of the old sticker located on backside of access door. Refer to *Figure 46*.

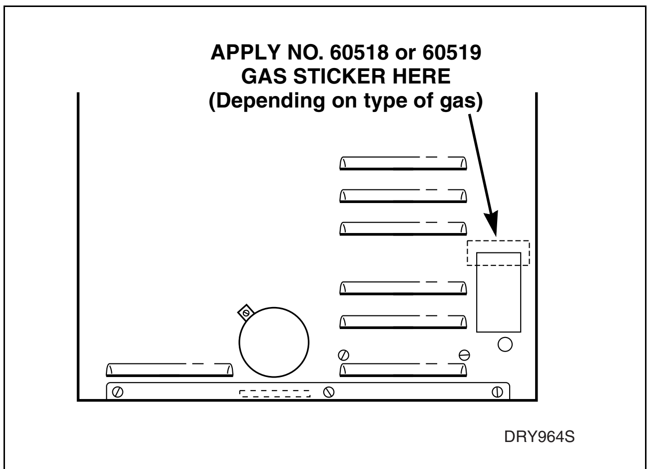


Figure 48

j. Apply the No. 60514 Conversion Plate to the inside of the loading door opening above the nameplate. Refer to *Figure 49*.

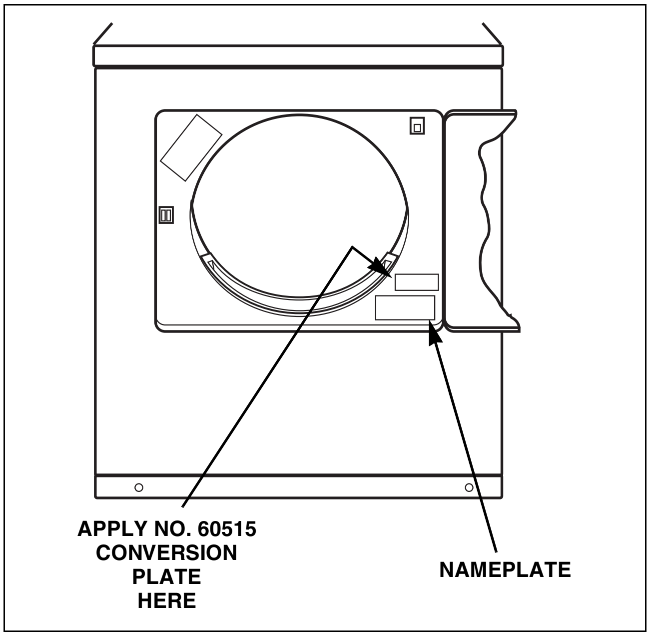


Figure 49

k. Turn the gas line shut-off valve handle to the open position and connect electrical service. Refer to *Figure 47*.

l. Check gas valve pressure as follows:
   (1) Remove pressure tap pipe plug. Refer to *Figure 47*.
   (2) Connect a "U" tube manometer (or similar pressure gauge) to the pressure tap. Refer to *Figure 50.*
   (3) Start dryer, pressure should be 3.5 ± .2 inches (8.89 ± .508 cm). Refer to *Figure 50*.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

(4) Stop dryer and remove “U” tube and reinstall the pressure tap pipe plug. Refer to *Figure 47.*

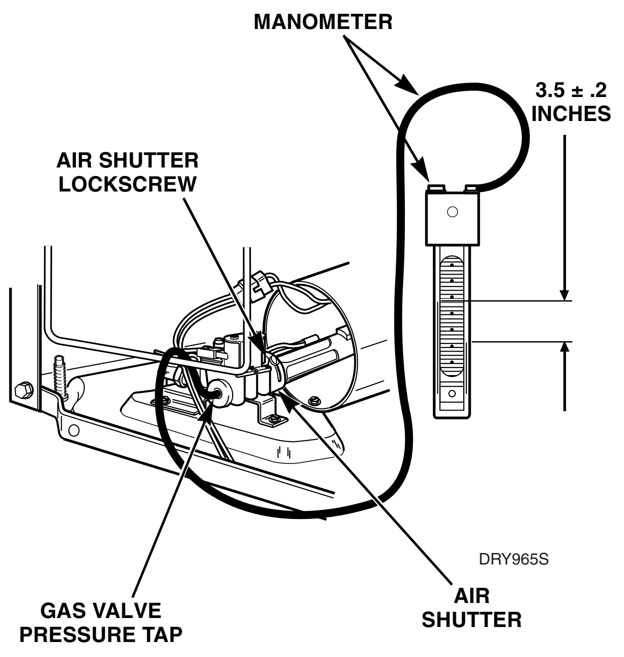


Figure 50

m. Check the gas line connection for gas leaks with a soapy solution.

DANGER

To reduce the risk of an explosion or fire, do not use an open flame to check for gas leaks!

n. Make sure the dryer conversion has been completed. Recheck the following:
   (1) Installed correct orifice spud (#44), see step “e”.
   (2) Installed the vent screw, see step “g”.
   (3) Gas valve pressure must be 3.5 ± .2 inches (8.89 ± .508 cm), see step “l”.
   (4) Installed four stickers, see steps “h”, “i”, and “j”.

o. Start dryer and observe burner flame. Adjust air shutter to obtain a soft, uniform flame. (A lazy, orange tipped flame indicates lack of air. A harsh, roaring, very blue flame indicates too much air.) Adjust air shutter to obtain a soft uniform blue flame as follows:
   (1) Loosen air shutter lockscrew. Refer to *Figure 50.*
   (2) Turn air shutter to the right or left as necessary to obtain proper flame intensity. Refer to *Figure 50.*
   (3) After air shutter is adjusted for proper flame, tighten air shutter lockscrew firmly.

p. **Be sure and observe** at least two complete ignition and burn cycles before reinstalling access door.

q. Reinstall the access door and screw.

WARNING

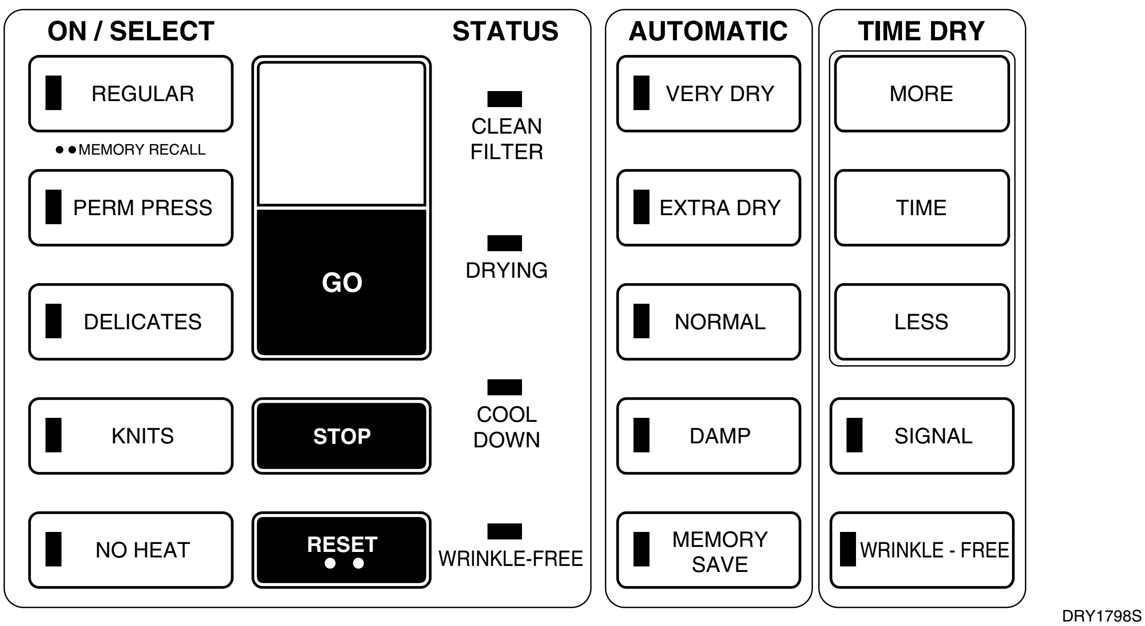
For personal safety, access door must be in place during normal operation.

Section 8
Service Procedures Unique to Electronic Control Model Dryers

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1



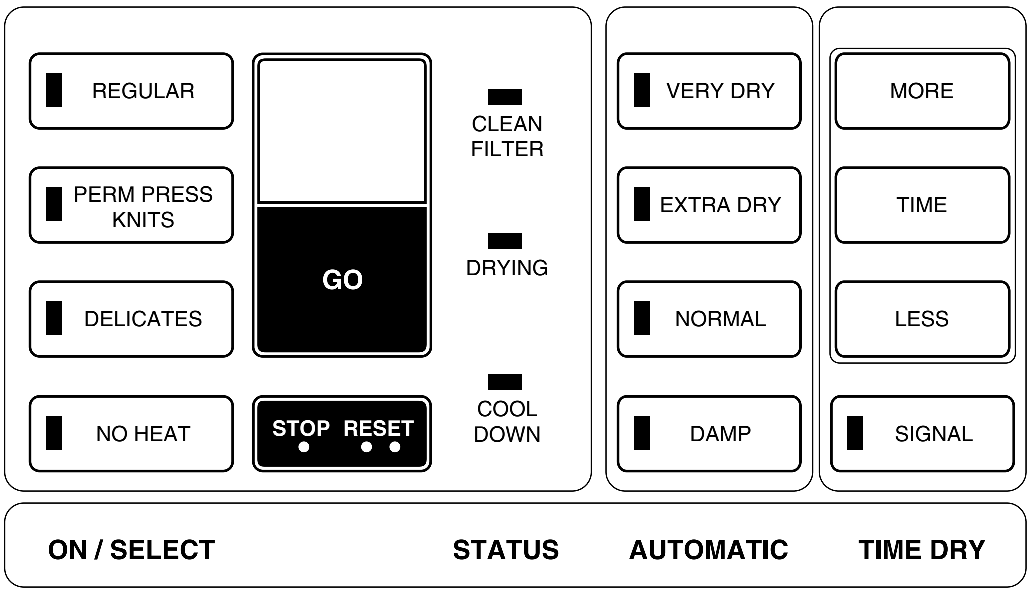
LEVEL I

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1



LEVEL II

Model	Level	Part No.
AG9139, AE9133, NG8639, NE8633, NG8539 and NE8533	I	59608
NG8339 and NE8333	1	59610
AG7139, AE7133, NG6539 and NE6533	II	59609
NG6339 and NE6333	II	59611

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

64. DRYER OPERATION

Press one of the ON/SELECT pads to select a cycle which is appropriate for the type of fabric being dried: REGULAR, PERM PRESS, DELICATES, KNITS and NO HEAT. These are automatic, preprogrammed cycles. A light to the left of the pad lights up to show pad has been activated.

Press the GO pad. The dryer will start immediately and stop automatically when the cycle has completed. Dryer will not start until the GO pad is pressed.

NOTE: When you have selected an automatic cycle, you will see the letters "AU" appear in the display area.

TO STOP THE DRYER AT ANY TIME – Open dryer door or press the STOP pad.

TO RESTART DRYER – Close door, select a cycle if necessary and press the GO pad. The dryer will not operate if the dryer door is open.

65. STATUS LIGHTS

The STATUS lights illuminate to show you at a glance what is happening inside your dryer.

Clean Filter	Will flash before each cycle to remind you to clean the dryer's lint filter before each load. A clean lint filter promotes faster drying and energy savings.
Drying	Remains lit while your clothes are drying.
Cool-Down	Lights up during the cool-down portion of the cycle.
Wrinkle-Free (available on some models)	Lights up during the wrinkle-free portion of the cycle when the wrinkle-free option has been selected. Clothes may be removed from the dryer at any time during the wrinkle-free portion.

66. GO, STOP AND RESET

GO
Press the GO pad to start the dryer. The dryer will not run until the GO pad is pressed.

STOP
Press the STOP pad to stop the dryer at any point in the cycle. The dryer will remain at that portion of the cycle until the GO pad is again pressed. At that time, the cycle will continue where it left off. Pressing the STOP pad two times in succession will completely turn the control off.

RESET
Press the RESET pad two times in succession to cancel any cycle or completely turn the dryer off.

67. AUTOMATIC CYCLES

Depending on the model of dryer you have, it may or may not have all of the following cycles and features.

By pressing REGULAR, PERM PRESS, DELICATES or KNITS, the Normal Automatic Dryness Level will be selected. With the correct cycle chosen, the dryer will determine the exact length of drying time. When the clothes are dry, the dryer will go into the cool-down portion of the cycle. The length of cool-down will vary according to which cycle is chosen.

68. NO-HEAT CYCLE

This is a no-heat cycle that tumbles and circulates room temperature air through the load. Use for any items that should not be dried with heat.

A preprogrammed 20-minute cycle is automatically chosen for you. Time can be added or subtracted by using the MORE or LESS pads.

WARNING

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- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

AUTOMATIC CYCLES

	REGULAR		PERM PRESS		DELICATES		KNITS	
Options	**Temp**	**Cool-down**	**Temp**	**Cool-down**	**Temp**	**Cool-down**	**Temp**	**Cool-down**
Very Dry	150°F	3 min.	144°F	8 min.	—	—	145°F	8 min.
Extra Dry	150°F	6 min.	144°F	10 min.	120°F	6 min.	145°F	10 min.
Normal	144°F	6 min.	144°F	10 min.	115°F	6 min.	140°F	10 min.
Damp	135°F	3 min.	120°F	8 min.	110°F	3 min.	130°F	8 min.

Figure 51

69. CUSTOMIZING PROGRAMMED CYCLES

All automatic cycles can be customized to fit your laundering needs.

First select a cycle by pressing a SELECT pad. Then, make changes in the preprogrammed cycle by using the pads to the right of the STATUS lights.

The degree of dryness of the load at the end of an automatic cycle is controlled by the VERY DRY, EXTRA DRY, NORMAL and DAMP pads. Use the VERY DRY selection when you want items extremely dry. Select EXTRA DRY for extra heavy, bulky items (like blue jeans or towels) that tend to hold more water than the average load. Unless another selection is made, the NORMAL level will automatically be used. Select DAMP for items that you want to iron or finish drying by hanging them up. Refer to *Figure 51*.

The ON/SELECT and NORMAL dryness level pads work together to provide you with up to nine different drying temperatures.

70. TIME DRYING

NOTE: The DRYNESS level pads will not work in the TIME drying cycle.

If you prefer, you can set your dryer to dry the load for a specific period of time. The dryer will dry with heat for the number of minutes you have selected, then tumble the load with room temperature air for an additional period of cool-down time.

To TIME DRY the load, first press one of the ON/SELECT pads. (When the TIME DRY cycles are used, the ON/SELECT pad controls the drying temperature to match the selection with the type of load you are drying.)

Then, press the ON/SELECT pad.You will see numbers replace the AU in the display area. This tells you how many minutes of heat have been selected. The number which automatically appears is a drying guideline for the type of fabric that would usually be dried at that particular time cycle setting.

This time can be increased or decreased by pressing the MORE or LESS pads. Press MORE to add drying time to the cycle. Press LESS to subtract drying time from the cycle. One press of the pad will change the time in one-minute intervals. Pressing and holding the pad down will

WARNING

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- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

change the time in five-minute intervals. Refer to *Figure 52*. To start the dryer, press the GO pad.

NOTE: When the GO pad is pressed, you will notice the time in the display area will increase 6 to 10 minutes, depending upon the cycle. This indicates the entire length of the cycle time including the cool-down period.

TIME DRY CYCLES	**Time (Min.)**	**Range (Min.)**	**Temp.**
REGULAR	40	1 – 93	144°F
Cool-Down	6	6	
Total Time	46	7 – 99	
PERM PRESS	30	1 – 89	144°F
Cool-Down	10	10	
Total Time	40	11– 99	
DELICATES	20	1 – 93	115°F
Cool-Down	6	6	
Total Time	26	7 – 99	
KNITS	40	1 – 89	140°F
Cool-Down	10	10	
Total Time	50	11 – 99	
NO HEAT	20	1 – 99	Ambient
Total Time	20	1 – 99	
Temperatures are approximate.			

Figure 52

71. SIGNAL

A signal is provided to let you know when the cycle is over. The signal has three distinctive loudness levels.Pressing the SIGNAL pad once will produce the softest tone. Press pad again and the tone will get louder. Pressing the pad a third time will result in setting the loudest tone. To turn the signal off, press the pad until the SIGNAL light goes out. The signal will not sound if the SIGNAL light is off.

72. MEMORY

You can create and save your favorite cycles by using the MEMORY SAVE option. Each programmed cycle — REGULAR, PERM PRESS, DELICATES, KNITS and NO HEAT can have one additional memory cycle for a total of five memories or favorite cycles in addition to the preprogrammed cycles.

To save a favorite cycle, first select a program cycle, then make changes you want for that cycle. When all selections have been made, press the MEMORY SAVE pad. Your favorite cycle is now saved. This cycle will be stored until you either change the cycle of until there is a power outage of several seconds or longer.

To recall your memory cycle, press an ON/SELECT cycle pad twice. The light on the MEMORY SAVE pad will light up when the memory cycle is recalled.

To change a memory cycle, press the programmed cycle selection pad twice to recall the memory cycle. Change the cycle, then press the MEMORY SAVE pad. The old memory cycle will be deleted and the new cycle memorized in its place.

73. WRINKLE-FREE

The WRINKLE-FREE cycle is an extended cool-down cycle. This cycle will run for 99 minutes starting at the end of the initial COOL DOWN cycle. This cycle will tumble the clothes in room ambient air for 30 seconds, every five minutes. At the end of every 30-second tumble, the signal will sound for three seconds if signal was selected. Select WRINKLE-FREE cycle by pushing pad. WRINKLE-FREE cycle is not available in the NO HEAT cycle.

WARNING

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- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

74. ELECTRICAL SERVICE (Electric Dryers)

120/240 Volt, 60 Hertz, 3-Wire Installation
120/208 Volt, 60 Hertz, 3-Wire Installation

NOTE: The wiring diagram is located inside the control hood.

WARNING

To reduce the risk of fire, electric shock or personal injury, all wiring and grounding MUST conform with the latest edition of the National Electrical Code ANSI/NFPA 70 or the Canadian Electrical Code, CSA C22.1, and such local regulations as might apply. It is the customer's responsibility to have the wiring and fuses checked by a qualified electrician to make sure the laundry room has adequate electrical power to operate the dryer.

W035

a. **Grounding and Wiring Instructions**

- The dryer must be connected to a grounded metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the dryer.
- The dryer has its own terminal block that must be connected to a separate branch, 60 Hertz, single phase, AC (alternating current) circuit **fused at 30 amperes** (the circuit must be fused on both sides of the line). **ELECTRICAL SERVICE FOR DRYER SHOULD BE OF MAXIMUM RATED VOLTAGE LISTED ON NAMEPLATE. DO NOT CONNECT DRYER TO 110, 115 OR 120 VOLT CIRCUIT.** Heating elements are available for field installation in dryers which are to be connected to electrical service of different voltage than that listed on nameplate, such as 208 Volt.

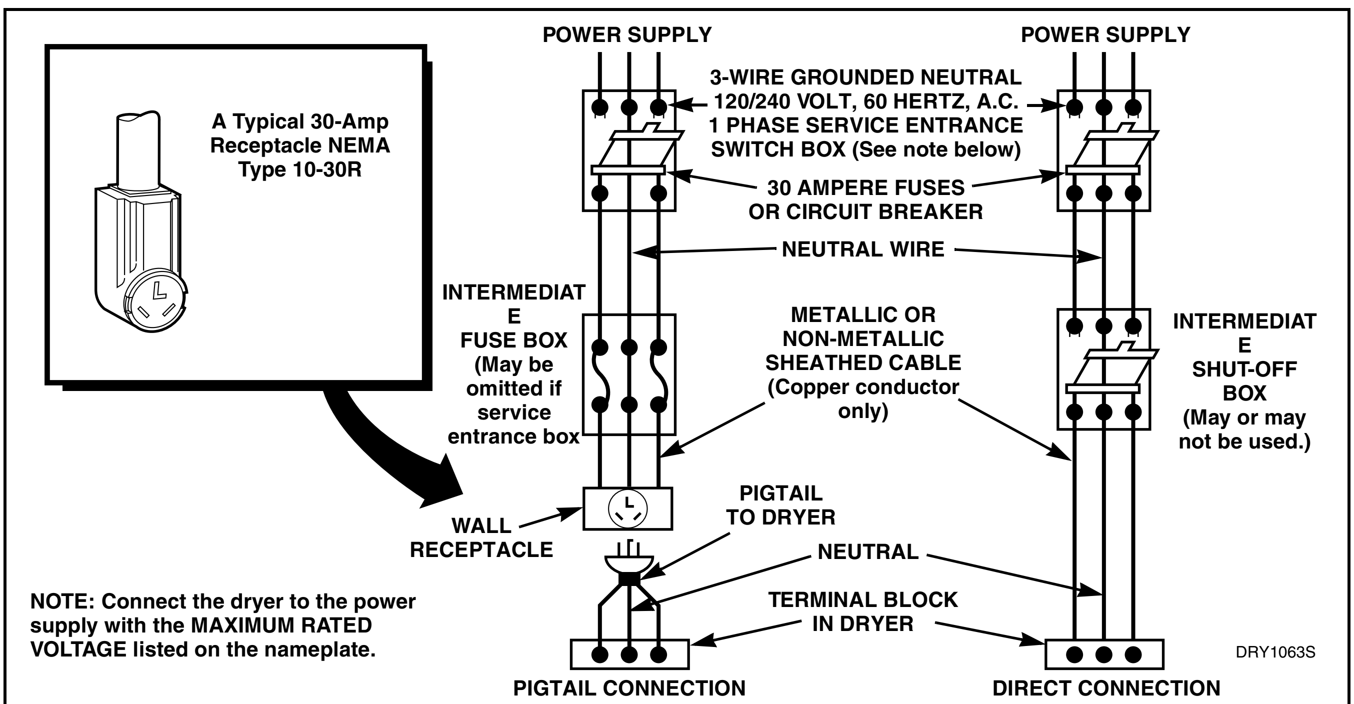


Figure 53

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

- If branch circuit to dryer is 15 feet (4.50m) or less in length, use U.L. (Underwriters Laboratories) listed No. 10 A.W.G. wire (copper wire only), or as required by local codes. If over 15 feet (4.50m), use U.L. (Underwriters Laboratories) listed No. 8 A.W.G. wire (copper wire only), or as required by local codes. Allow sufficient slack in wiring so dryer can be moved from its normal location when necessary.
- The power cord (pigtail) connection between wall receptacle and dryer terminal block **is NOT supplied with dryer.** Type of pigtail and gauge of wire must conform to local codes and with instructions mentioned in previous paragraph.
- The method of wiring the dryer is optional and subject to local code requirements. Refer to *Figure 53*.

b. **Electrical Connection (Three-Wire)**

IMPORTANT: This dryer is grounded to neutral conductor at the terminal block. If the dryer is installed in a mobile home, or if local codes do not permit grounding through the neutral, proceed as shown on Pages 76 and 77.

WARNING

To reduce the risk of electric shock, disconnect the electrical service to the dryer before proceeding.

W135

(1) Remove the screw and terminal block access cover from the rear of dryer cabinet.

(2) Insert ends of wires through power supply hole (containing proper strain relief) in rear of dryer cabinet. Refer to page 75. Connect the power cord, or direct wiring, to the appropriate terminal block terminals as follows:

Through Serial No. S6271975XG–Use the nuts and washers from the accessories pack in the envelope shipped inside the dryer cylinder.

Starting Serial No. S6271976XG–Use the three-wire binding (10-32x3/8") screws from the accessories pack in the envelope shipped inside the dryer cylinder.

If the dryer had previously been connected with a four-wire power cord, remove the four-wire cord by reversing procedures under four-wire power cord. Refer to pages 76 and 77.

IMPORTANT: Use only a new U.L. listed No. 10 (copper wire only) three conductor power supply cord kit rated 240 Volts (minimum) 30 Amperes and labeled as suitable for use in a clothes dryer.

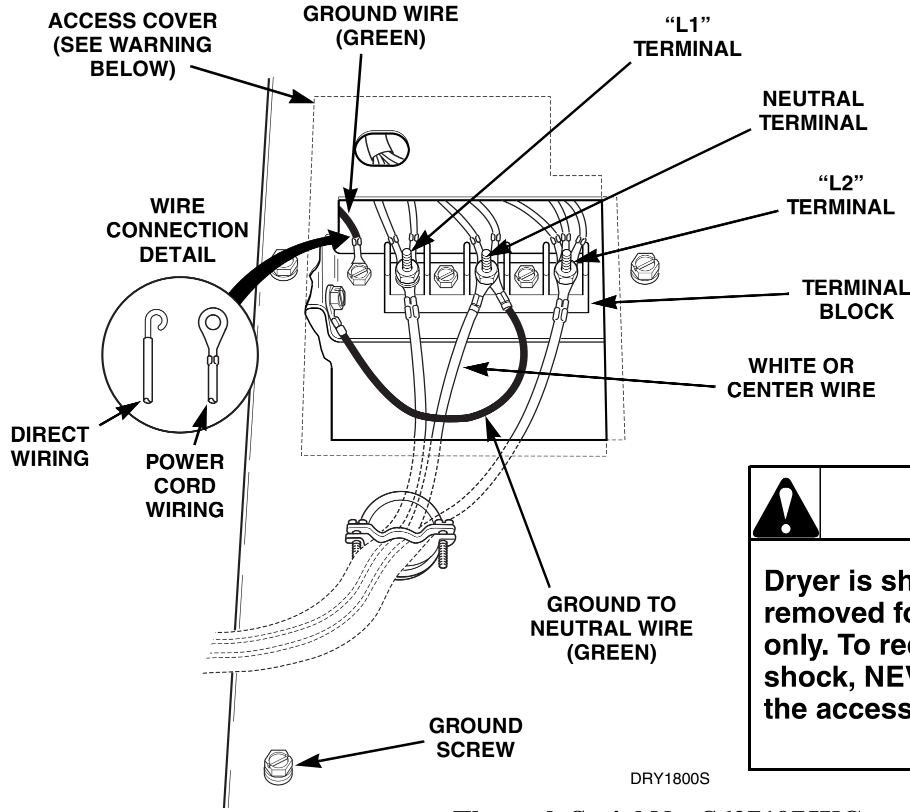
(3) **Through Serial No. S6271975XG**– Tighten these outer nuts firmly using a 3/8" deep well socket.

Starting Serial No. S6271976XG–Tighten these wire-binding screws firmly.

IMPORTANT: Failure to tighten either the nuts or screws firmly may result in wire failure at the terminal block.

(4) Secure the strain relief to the power cord, or wires, where they enter the dryer cabinet.

(5) Reinstall access cover and screw.

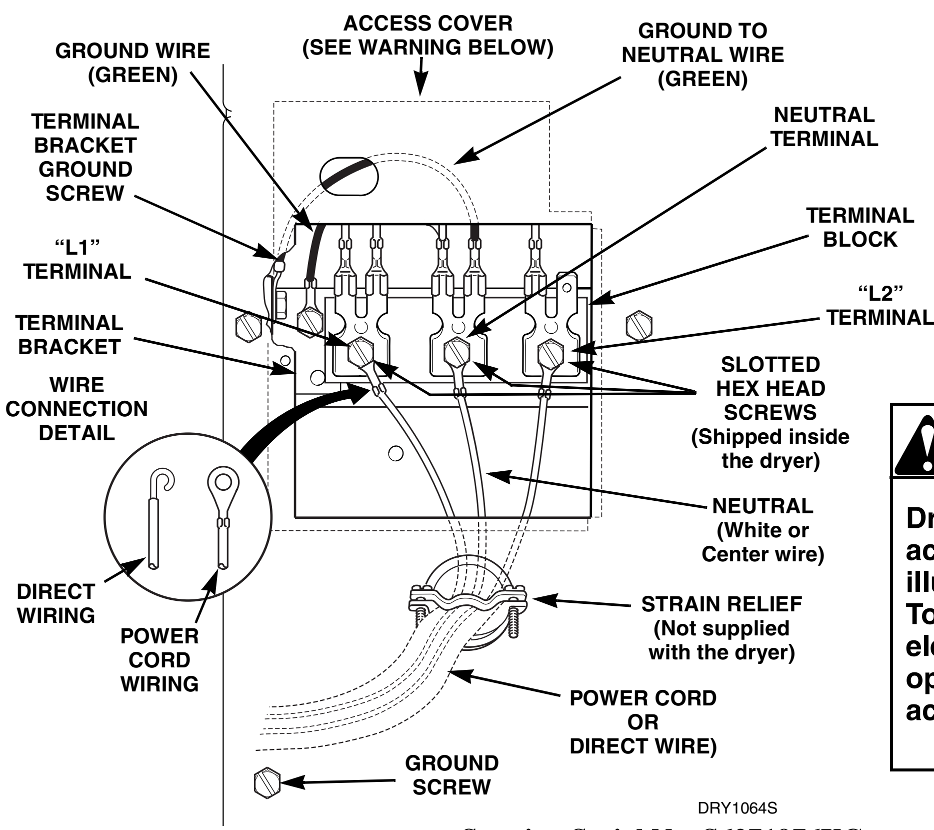


WARNING

Dryer is shown with the access cover removed for illustration purposes only. To reduce the risk of an electric shock, NEVER operate the dryer with the access cover removed.

W136

Through Serial No. S6271975XG



WARNING

Dryer is shown with the access cover removed for illustration purposes only. To reduce the risk of an electric shock, NEVER operate the dryer with the access cover removed.

W136

Starting Serial No. S6271976XG

Figure 54

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

c. **Four-Wire Power Cord**

IMPORTANT: Use only a U.L. listed No. 10 A.W.G. (copper wire only) four conductor power supply cord kit rated 240 Volts (minimum) 30 Amperes and labeled as suitable for use in a clothes dryer.

WARNING

This type of installation MUST be made on mobile home dryers.

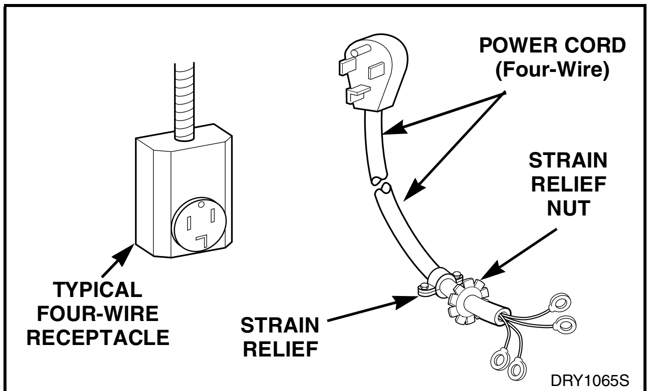


Figure 55

NOTE: The power cord is not supplied with the dryer when the dryer is shipped from the factory, therefore, disregard Steps 2 and 3 below when connecting a four-wire power cord to a NEW dryer.

If the dryer has a three-wire cord attached, then complete Steps 1 through 11.

WARNING

To reduce the risk of electric shock, disconnect the electrical service to the dryer before proceeding.

W135

(1) Remove the screw holding the access plate to the rear of dryer cabinet.

(2) **Through Serial No. S6271975XG**– Remove three nuts and cupped washers holding the three wires to terminal block terminals. **Save the nuts and washers**.

Starting Serial No. S6271976XG– Remove three screws holding the three wires to terminal block terminals. Save these screws.

(3) Loosen the strain relief screw and pull the cord or wires out through the rear of the dryer.

(4) Remove the terminal bracket ground screw holding the green ground wire to the terminal block mounting bracket. **Save the screw**.

NOTE: ON NEW DRYERS – This is the green ground wire that goes from the neutral (center) terminal on the terminal block to the mounting bracket.

Install Four-Wire Power Cord

(5) Route the end of the four-wire power cord through the strain relief. DO NOT tighten the strain relief screws at this time.

(6) Insert the end of the power cord and strain relief through the hole in the rear of dryer cabinet. Refer to *Figure 56*. Install the strain relief nut from the inside of the cabinet and tighten firmly.

(7) Attach the green ground wire (from the four-wire power cord) to the terminal block mounting bracket using the hex head screw removed in Step 4. Tighten the screw firmly.

(8) Install matching colored wires (from four-wire power cord) to the matching colored wires from wire harness on terminal block terminals (i.e., red to red, white to white and black to black)

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

Through Serial No. S6271975XG– Reinstall the three cupped washers and nuts if removed in Step 3 and tighten securely, or use cupped washers and nuts from the accessories pack if the cord is being installed for the first time.

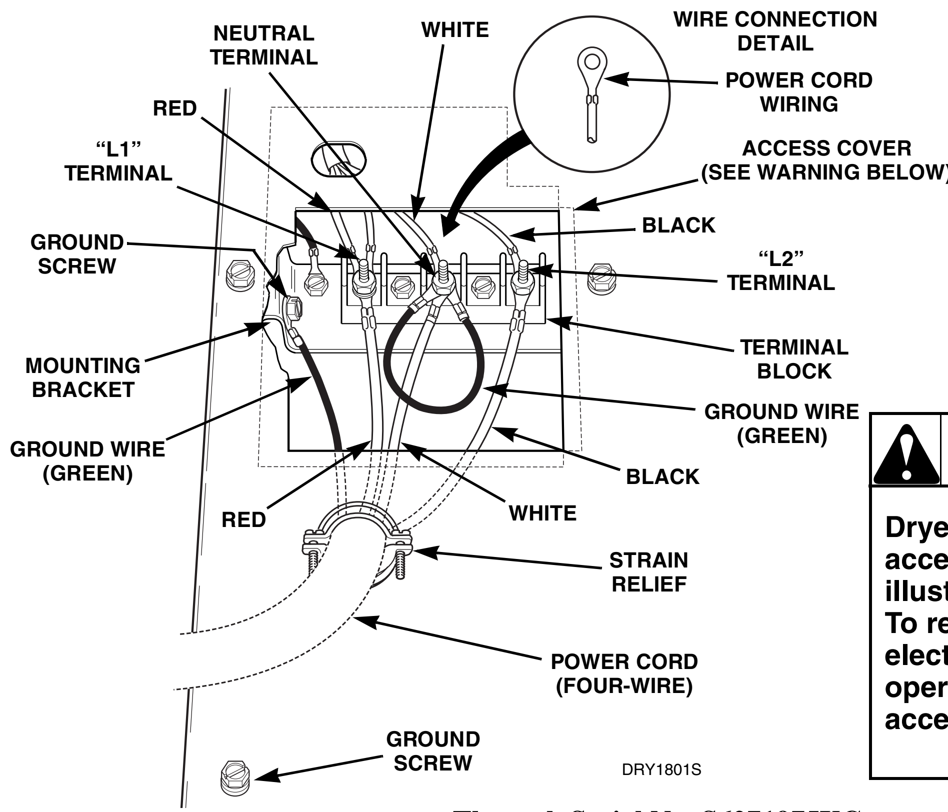
Starting Serial No. S6271976XG–Using the three wire-binding (10-32x3/8") screws from the accessories envelope (located inside the cylinder, unless the screws were previously removed in Step 2), attach the power cord wires to the terminal block terminals as follows:

(a) Red to Red
(b) Black to Black
(c) White to White (see NOTE below)

NOTE: When installing the white wire, loop the free eyelet end of the green ground wire (from Step 4) and place it together with the white wire. Attach both wires to the neutral (center) terminal on the terminal block. Refer to *Figure 56*.

IMPORTANT: Failure to tighten the screws firmly on the terminal block may result in terminal block failure.

(9) Tighten the two strain relief screws to secure the power cord.
(10) Recheck all nuts or screws to be sure they are tight.
(11) Reinstall the access plate and screw to the rear of the dryer cabinet.

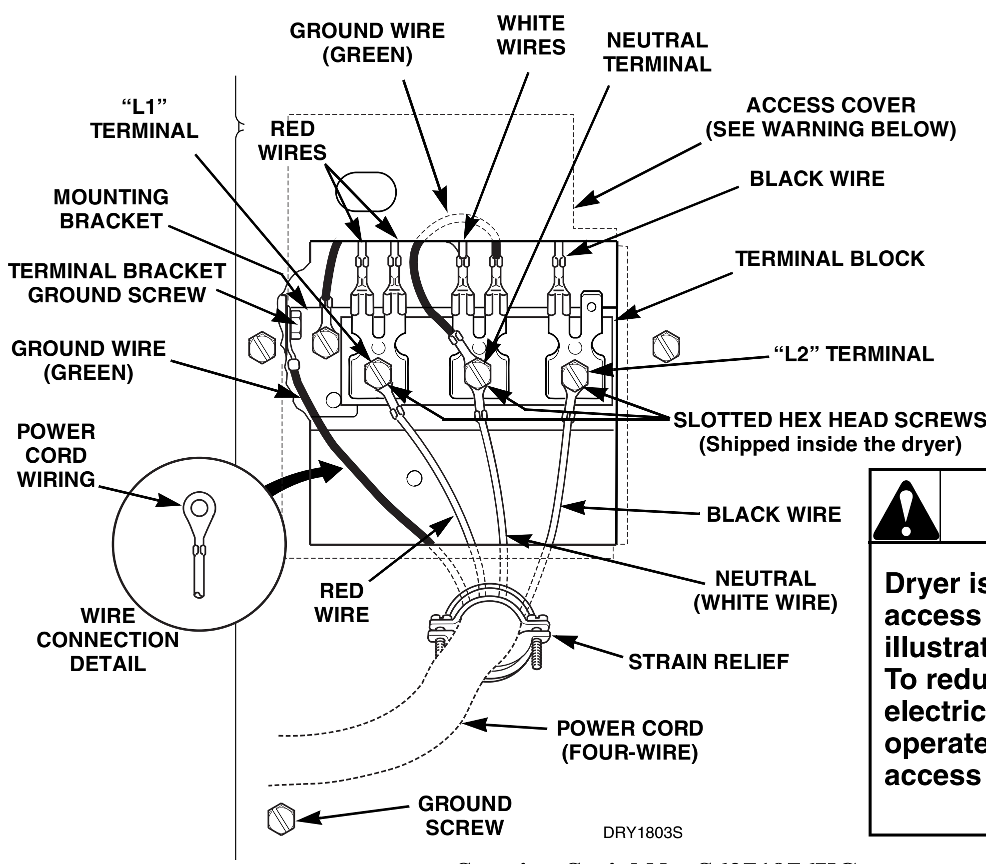


WARNING

Dryer is shown with the access cover removed for illustration purposes only. To reduce the risk of an electric shock, NEVER operate the dryer with the access cover removed.

W136

Through Serial No. S6271975XG



WARNING

Dryer is shown with the access cover removed for illustration purposes only. To reduce the risk of an electric shock, NEVER operate the dryer with the access cover removed.

W136

Starting Serial No. S6271976XG

Figure 56

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

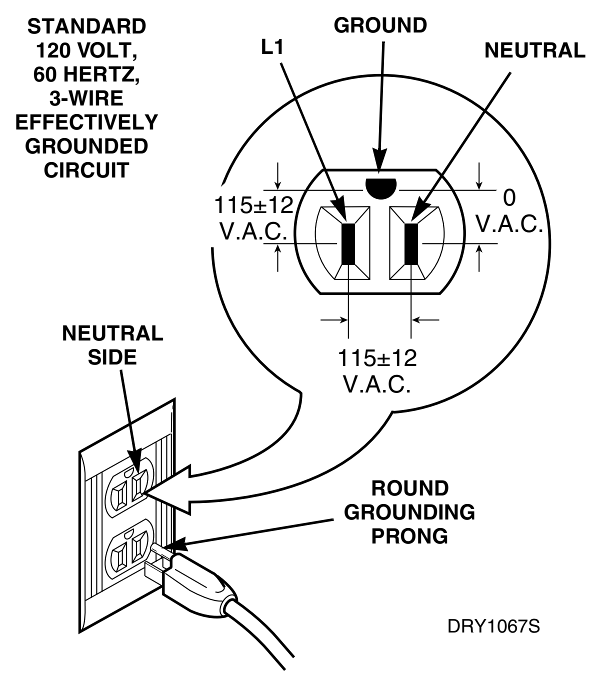
75. ELECTRICAL REQUIREMENTS (Gas Dryers)

120 Volt, 60 Hertz, with 3-Prong Grounding Plug

WARNING

To reduce the risk of fire, electric shock or personal injury, all wiring and grounding MUST conform with the latest edition of the National Electrical Code ANSI/NFPA 70 or the Canadian Electrical Code, CSA C22.1, and such local regulations as might apply. It is the customer's responsibility to have the wiring and fuses checked by a qualified electrician to make sure the laundry room has adequate electrical power to operate the dryer.

W035



NOTE: A qualified electrician should check the polarity of the wall receptacle. If a voltage reading is measured other than that illustrated, the qualified electrician should correct the problem.

Figure 57

NOTE: The wiring diagram is located inside the control hood.

a. The dryer is designed to be operated on a separate branch, polarized, three-wire, effectively grounded, 120 Volt, 60 Hertz, AC (alternating current), circuit protected by a **15 ampere fuse**, equivalent fusetron or circuit breaker.

b. The three-prong grounding plug on the power cord should be plugged directly into a polarized three-slot effectively grounded receptacle rated 110/120 Volts AC (alternating current) 15 Amps. Refer to *Figure 57* for determining correct polarity of the wall receptacle.

c. DO NOT OPERATE OTHER APPLIANCES ON THE SAME CIRCUIT. DO NOT OVERLOAD CIRCUITS! Refer to *Figure 58*.

WARNING

To reduce the risk of an electric shock or fire, DO NOT use an extension cord or an adapter to connect the dryer to the electrical power source.

W037

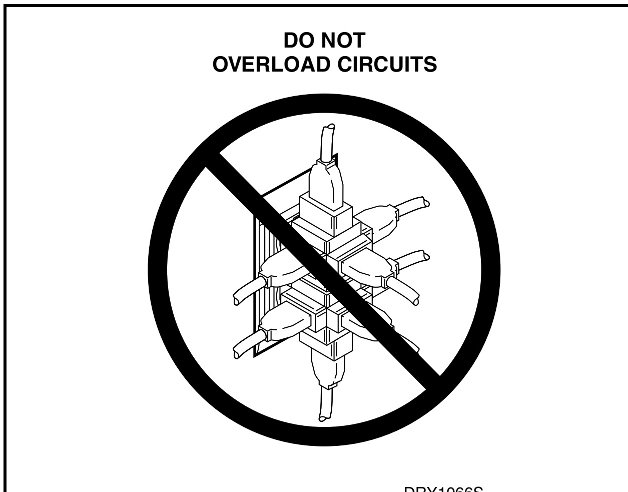


Figure 58

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

d. **Grounding Instructions**

- The dryer must be grounded. In the event of malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. The dryer is equipped with a cord having an equipment-grounding conductor and a three-prong grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local cords and ordinances.

WARNING

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the dryer is properly grounded.

W038

- **DO NOT** modify the plug provided with the dryer —if it will not fit the outlet, have a proper outlet installed by a qualified electrician.
- If a positive ground cannot be established through the power cord and **if local code permits** its use, connect an external ground wire (18 gauge minimum, available at your local hardware store). Connect one end of the wire under the ground screw (located at the rear of the dryer) and the other end to a known effective electrical ground.
- If your home's electrical supply does not meet the above specifications and/or if you are not sure your home has an effective ground, have a qualified electrician or your local electrical utility company check it and correct any problems.

e. **Gas Dryers Equipped with Electronic Control**

- After connecting the dryer to the electrical supply, start the dryer (refer to the Operating Instructions supplied with the dryer). If the electronic control flashes (with the dryer door closed) it could mean the polarity or grounding of the outlet is incorrect. Have a qualified electrician check out the polarity and grounding and correct the problem. Refer to Page 78.

76. SERVICE PROCEDURES FOR TROUBLESHOOTING ELECTRONIC CONTROL

WARNING

For safety reasons, disconnect electrical service to dyer, and close valve in gas supply line to gas dryer before servicing

Never energize the electrical power to the dryer with any of the panels removed.

IMPORTANT: These procedures are intended to be used as an aid in diagnosing potential problems with the electronic control. Refer to Section VII (Service Helps) for diagnosing problems with components other than the electronic control. Refer to *Figure 59* for terminal numbers, connections and color coding.

77. DIAGNOSTIC CYCLE

a. A diagnostic cycle is built into the electronic control to detect internal problems on the printed circuit board of the control.

IMPORTANT: The diagnostic cycle is not intended to diagnose any components built into the control (i.e. relays, transformer, capacitors, etc.).

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

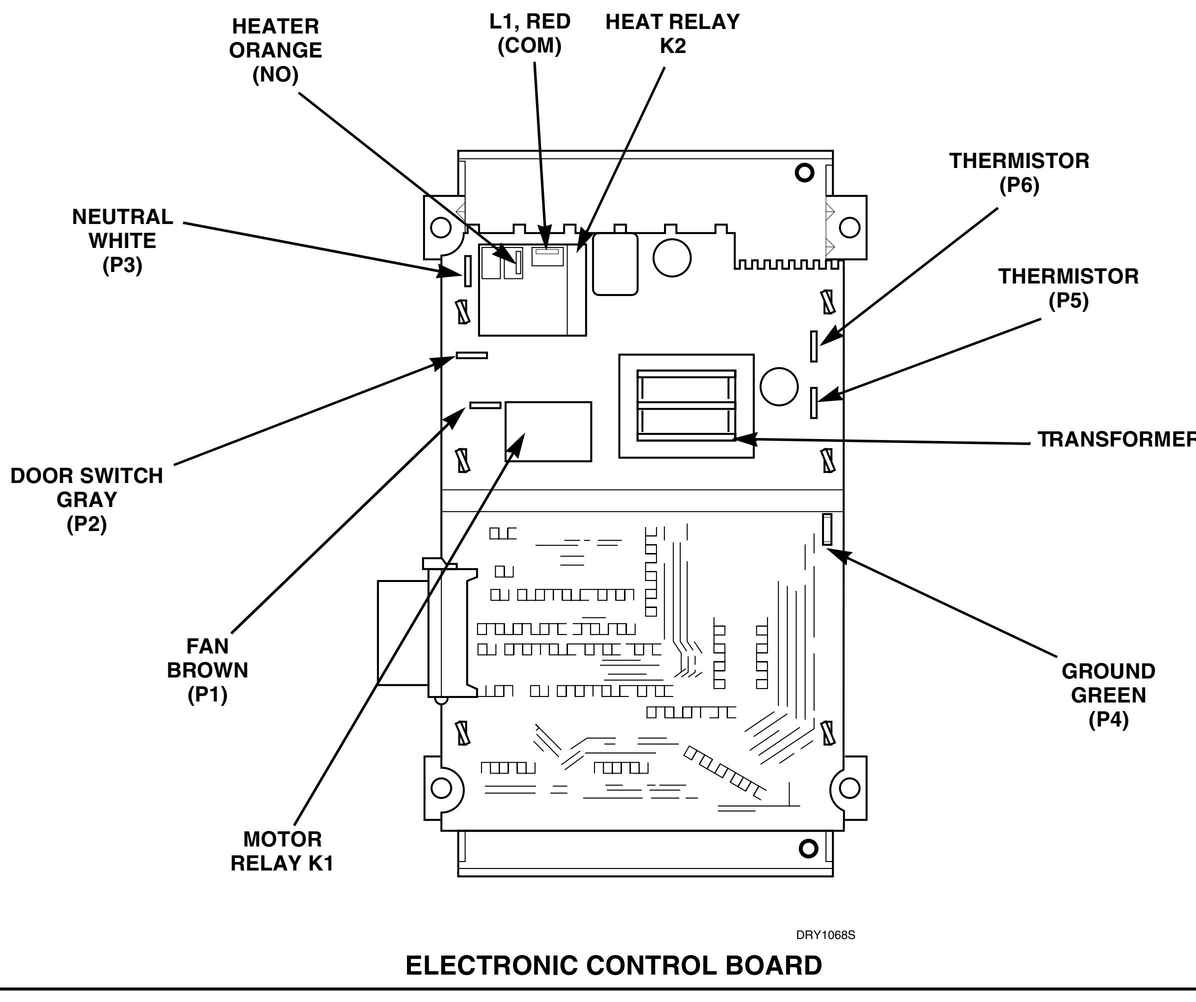
W001R1

b. The diagnostic cycle is used in conjunction with a self-diagnostic routine chart located on the wiring diagram sticker inside of the control hood. Refer to *Figure 60*. To begin the diagnostic cycle, follow the flow chart on Page 82.

NOTE: If the symptom or problems corresponds to one of the symptoms detailed on the following pages, proceed to that flow chart. (The diagnostic cycle chart check does not have to be made.)

c. **Self-Diagnostic Routine**
Entry: Follow the sequence given below.
(1) Make sure dryer loading door is closed.
(2) Start in the idle mode (all LED's off).
(3) Press the SIGNAL and GO pads simultaneously.
(4) If unable to start routine, check door switch.

Exit: Do any of the following.
(1) Press any pad.
(2) Open dryer loading door.
(3) Unplug the dryer.



ELECTRONIC CONTROL BOARD

Figure 59

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

LED Display	Illuminated LED	Motor Relay	Heat Relay	Signal Volume
99	None (All Off)	On	Off	Off
88	Wrinkle Free Status	Off	Off	Off
77	Cool Down	Off	Off	Off
66	Drying	Off	Off	Off
55	Clean Filter	Off	Off	Off
44	Memory	Off	Off	Off
33	Damp	Off	Off	Off
22	Normal	Off	Off	Off
11	Extra Dry	Off	Off	Off
00	Very Dry	Off	Off	Off
99	None (All Off)	Off	Off	Softest
88	None (All Off)	Off	Off	Medium
77	None (All Off)	Off	Off	Loudest
77	Signal	Off	Off	Off
55	Wrinkle-Free Select	Off	Off	Off
44	No Heat	Off	Off	Off
33	Knits	Off	Off	Off
22	Delicates	Off	Off	Off
11	Perm Press	Off	Off	Off
00	Regular	Off	Off	Off
99	None (All Off)	Off	On	Off
88	None (All Off)	On	On	Off

Figure 60

NOTE:
1. **This test routine will only light in the LED's pertaining to the hardware model selected.**
2. **When the last step in the table is finished, the routine sequence will repeat.**
3. **East output is on for two seconds.**

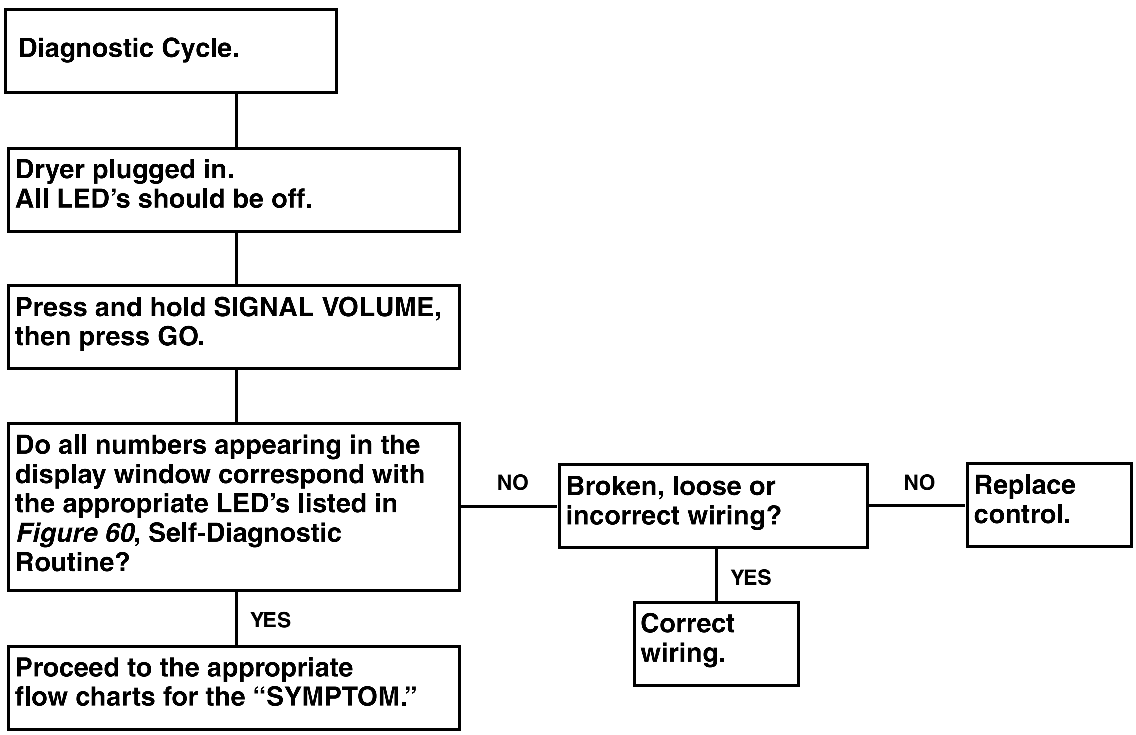
WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

78. SYMPTOM: FAILURE SYMPTOM



NOTE: The DIAGNOSTIC cycle follows the Diagnostic Routine located behind the control hood. All numbers should match with the correct LED’s. Refer to *Figure 60*.

Troubleshooting

NOTE: Refer to *Figure 59*.

If the symptom or problem corresponds to one of the symptoms detailed on the following pages, proceed to that flow chart. (The diagnostic cycle check does not have to be made.)

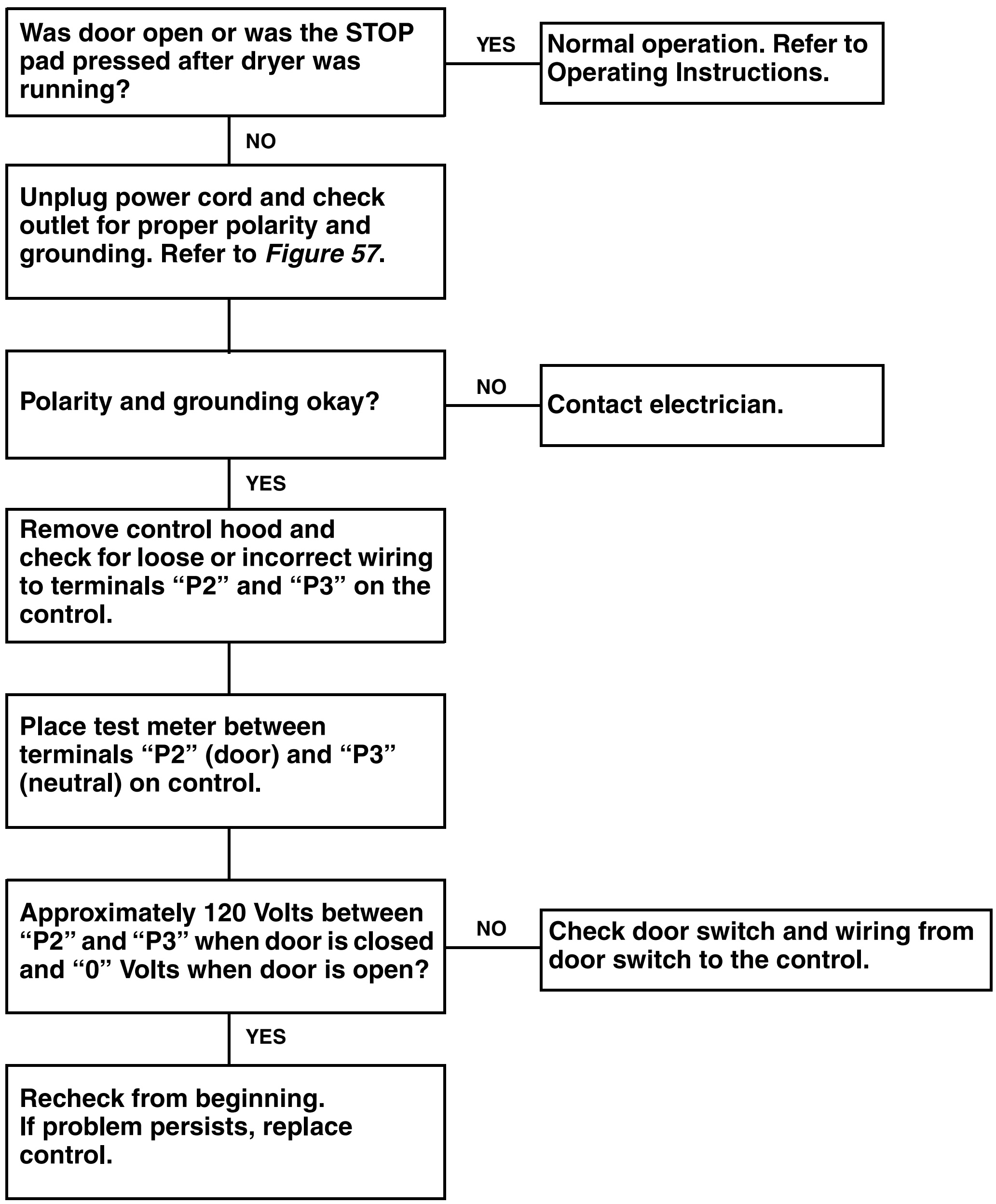
WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

79. SYMPTOM: FLASHING DISPLAY

NOTE: Refer to *Figure 59* to aid in this Troubleshooting section.

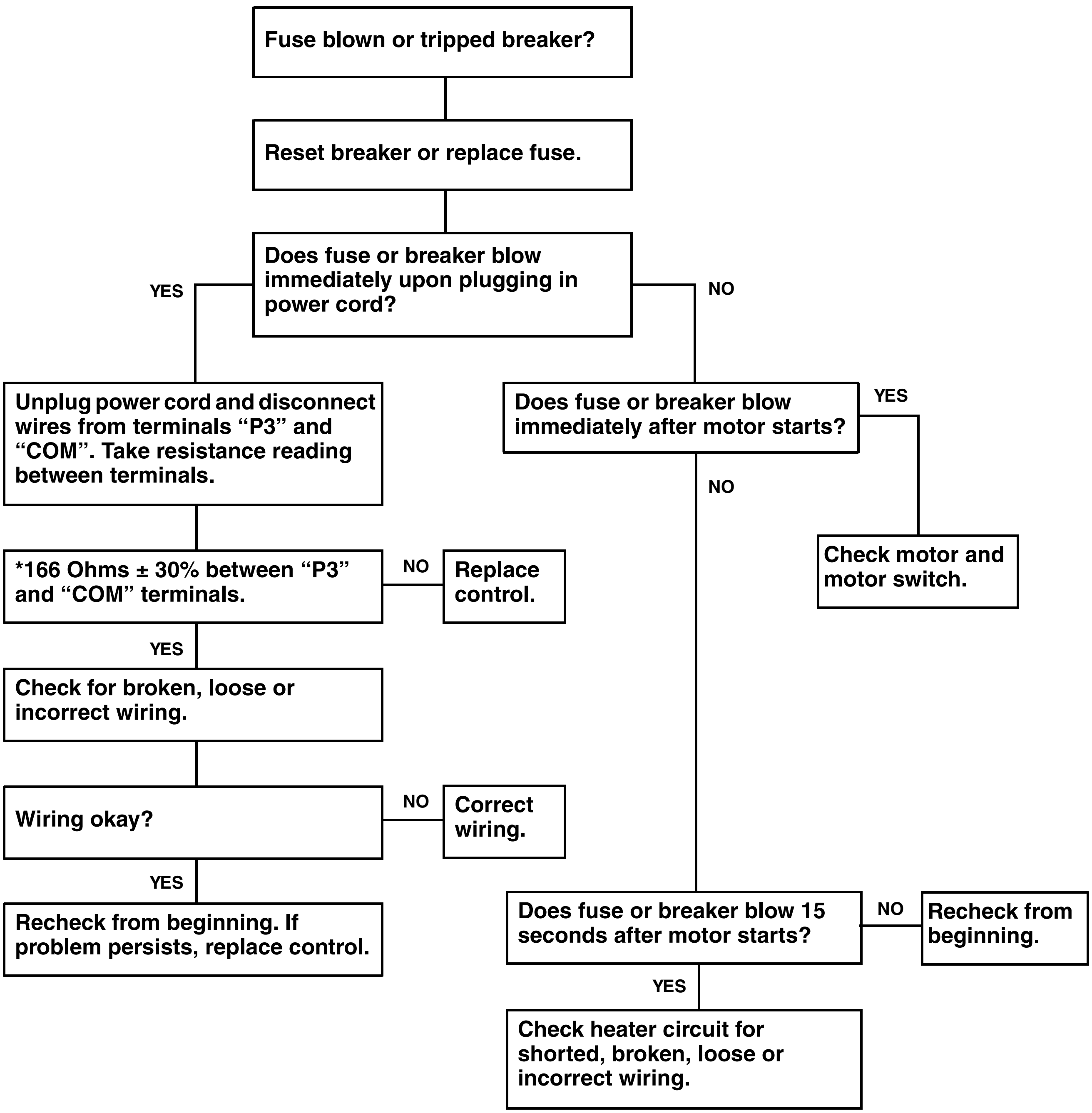


WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

80. SYMPTOM: BLOWN FUSE OR TRIPPED CIRCUIT BREAKER



***This measurement should be made with a digital Multi-Meter set at 200 Ohm scale for best precision.**

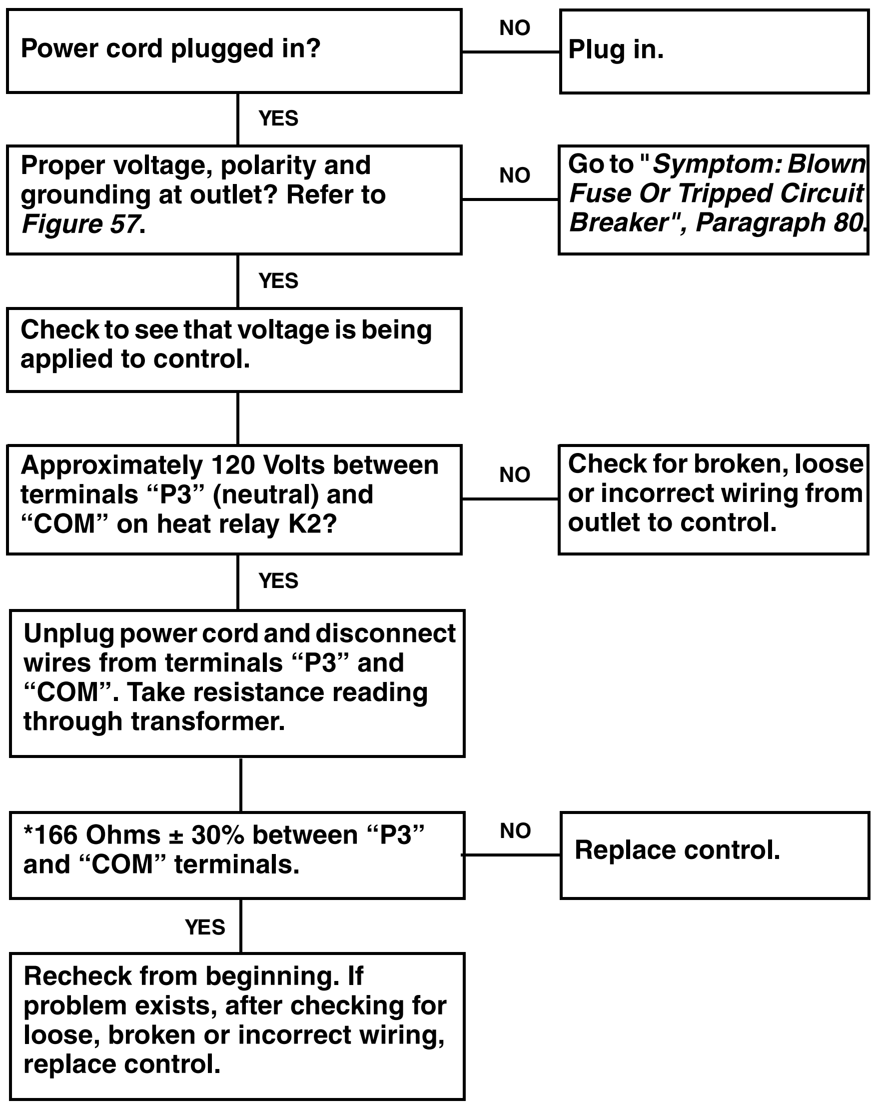
WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

81. SYMPTOM: CONTROL WILL NOT WAKE UP (No LED’S Light) AFTER SELECT PAD IS PRESSED



***This measurement should be made with a digital Multi-Meter set at 200 Ohm scale for best precision.**

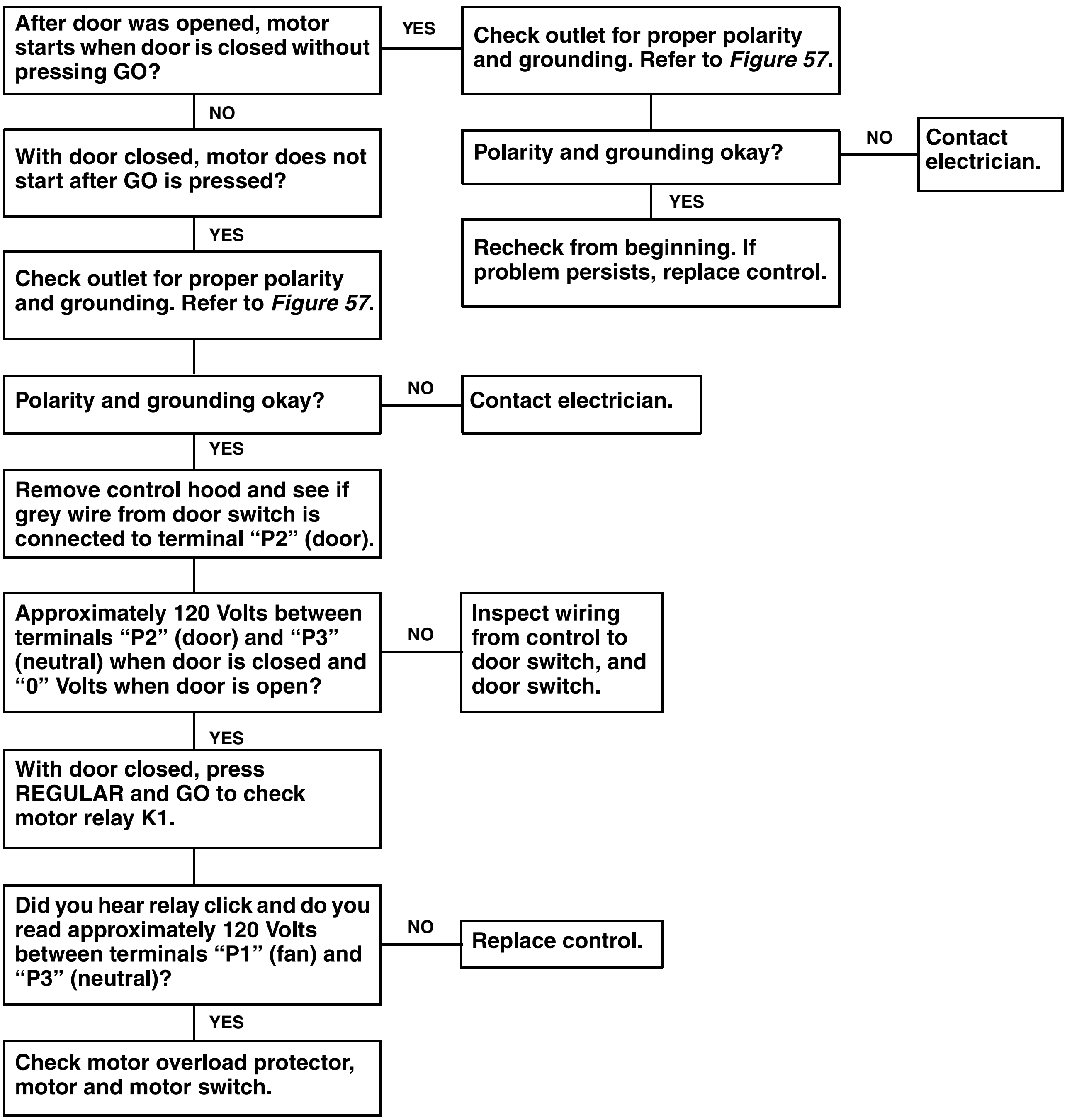
WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

82. SYMPTOM: CONTROL WAKES UP (When SELECT Pad is Pressed) BUT MOTOR DOES NOT START PROPERLY



WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

83. SYMPTOM: HEATER DOES NOT TURN ON OR NO HEAT

Are you in a NO HEAT cycle?

YES → **Normal operation.**

NO ↓

Remove control hood and verify that voltage is being applied to control between terminals "COM" on heat relay K2 and "P3" (neutral).

↓

Approximately 120 Volts between "COM" and "P3"?

NO → **Check for broken, loose or incorrect wiring.**

YES ↓

Unplug power cord. Disconnect wire from terminal "P5" on control. This will simulate a call for heat.

Disconnect wire from terminal "P1" to eliminate any feedback through heater circuit on electric dryers.

↓

Plug in power cord. Press REGULAR and GO and place meter between terminals "N.O." on heat relay K2 and "P3" (neutral).

↓

Approximately 120 Volts between "N.O." (door) and "P3" in five seconds?

NO → **Replace control.**

YES ↓

Verify that orange wire is connected to terminal "N.O." on heat relay K2.

↓

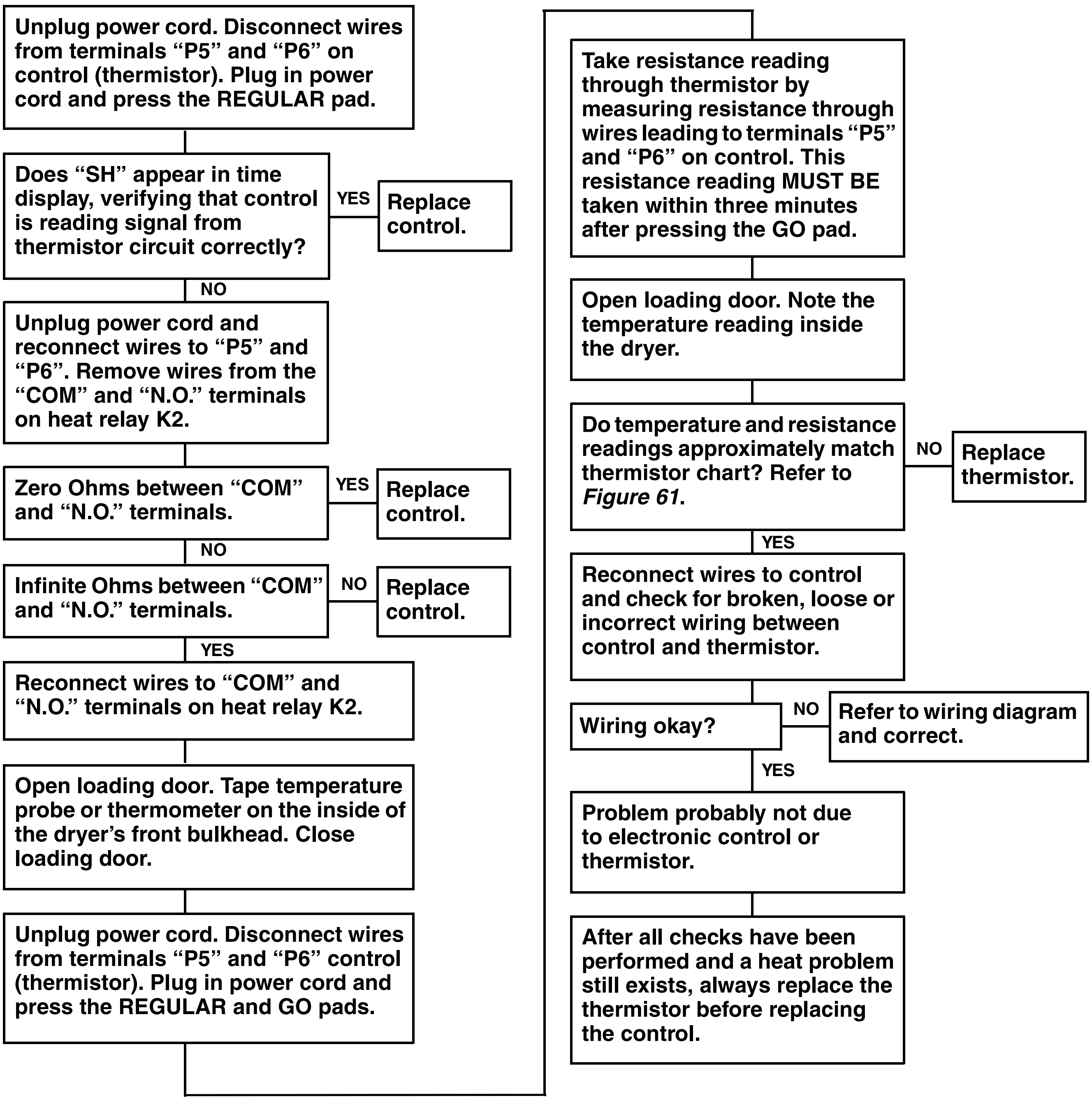
Check motor switch, limit thermostat, exhaust, heater assembly or gas valve.

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

84. SYMPTOM: IMPROPER HEAT OR DRYING TIMES

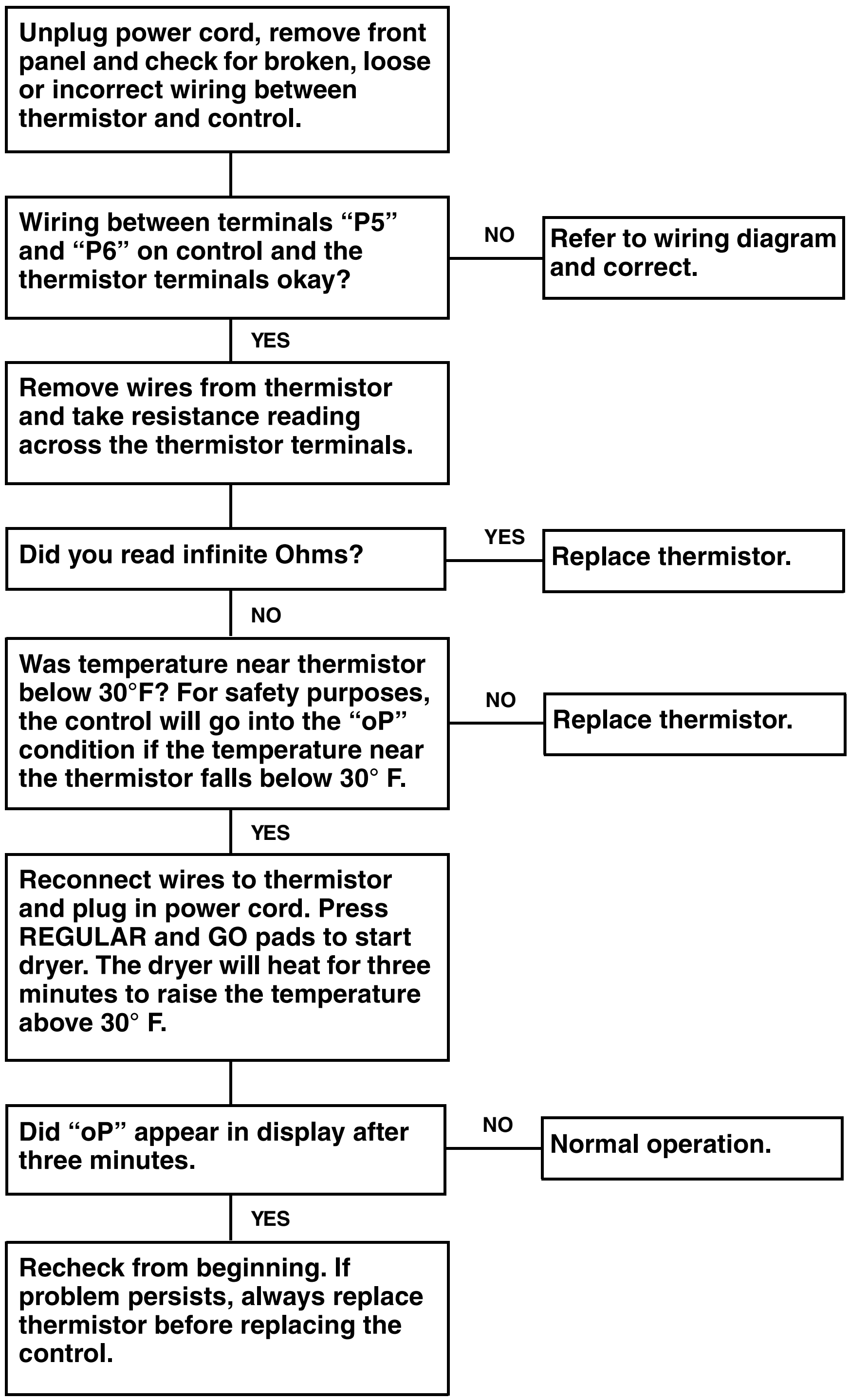


WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

85. SYMPTOM: "oP" APPEARS IN TIME DISPLAY

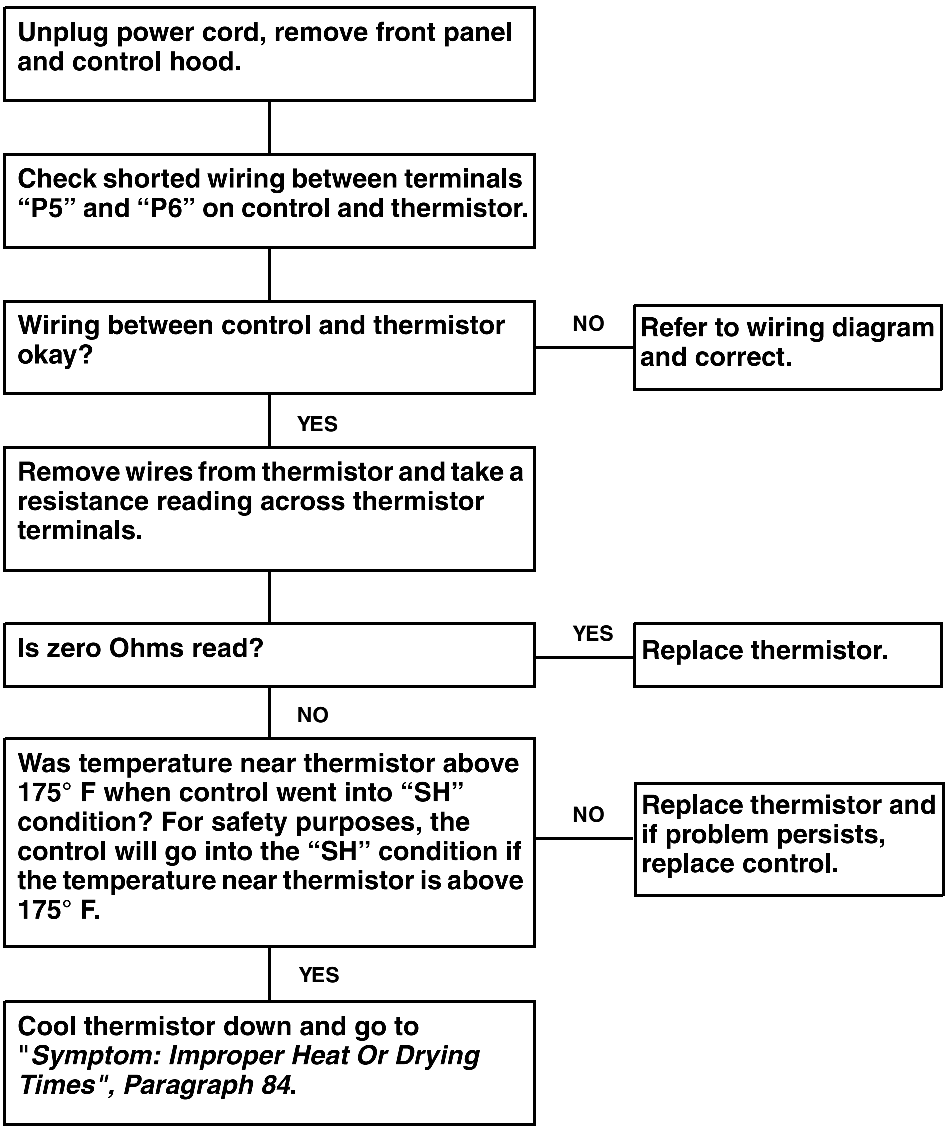


WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

86. SYMPTOM: "SH" APPEARS IN TIME DISPLAY



WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

Thermistor Chart					
Temp. °F	**Resistance Ohms**	**Temp. °F**	**Resistance Ohms**	**Temp. °F**	**Resistance Ohms**
–20	826000	55	87200	125	16900
–15	697000	60	76600	130	15200
–10	590500	65	67350	135	13800
– 5	501500	70	59400	140	12400
0	427000	75	52500	145	11300
5	364800	77	50000	150	10200
10	312500	80	46500	155	9300
15	268400	85	41300	160	8400
20	231200	90	36700	165	7700
25	199600	95	32700	170	7000
30	172800	100	29100	175	6400
35	150000	150	26100	180	5900
40	130500	110	23300	185	5400
45	113800	115	20900	190	4900
50	99500	120	18800	195	4500

Figure 61

NOTE: As temperature decreases, resistance increases. As temperature increases, resistance decreases.

87. CONTROL REPLACEMENT

When a problem with the electronic control is detected during the diagnostic cycle, or while making the electrical tests we have discussed, the control is replaced as a complete unit. Due to the sensitivity of the electronic control, careful handling is required. As a precautionary measure, we recommend the use of a grounded wrist strap when handling the electronic controls. The wrist strap, cord and alligator clip are designed to carry away any electrostatic charge from your body and to direct the charge to an available ground. By using this static protection device, potential electrostatic discharge problems associated with the handling of the electronic control will be minimized. Always handle the electronic control by the metal edges. If a wrist strap is not available, touch the washer while it is plugged in before handling the control to dissipate any charge.

To replace the control, first unplug the washer. Remove all of the wires connected to the control and take out the four screws securing the control to the control hood. When removing wires from the control, hold down on the board near the appropriate terminal, and disconnect the wires using a pliers. Do not pull on wires.

The new control is supplied in a special anti-static wrapping, and protected by anti-static foam. While holding the metal edges, remove the control from the foam and the wrapping. Lift the inoperative control off the mounting bracket and place it on the anti-static wrapping. Before positioning the new control in the control hood, **peel off the protective plastic coating from the front side of the control, then fasten** the control down with the four screws. Following the wiring diagram, reconnect the wires to the new control, then replace the control hood.

It is important to take care when handling the original control. It must be carefully placed in the anti-static wrapping and the anti-static foam which was removed from the new control. A copy of the replacement report, must be completely filled out and returned with the control. Warranty credit will not be issued if the control is not wrapped properly.

Notes

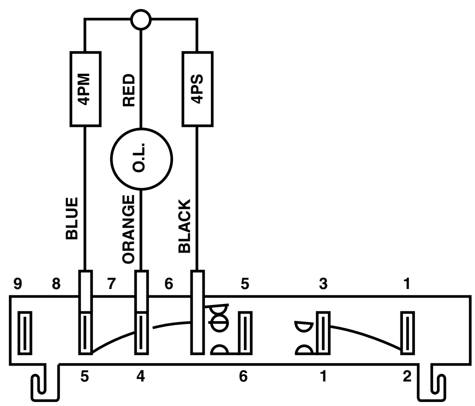
Section 9
Internal Wiring of Dryer Motor Switch

⚠	WARNING

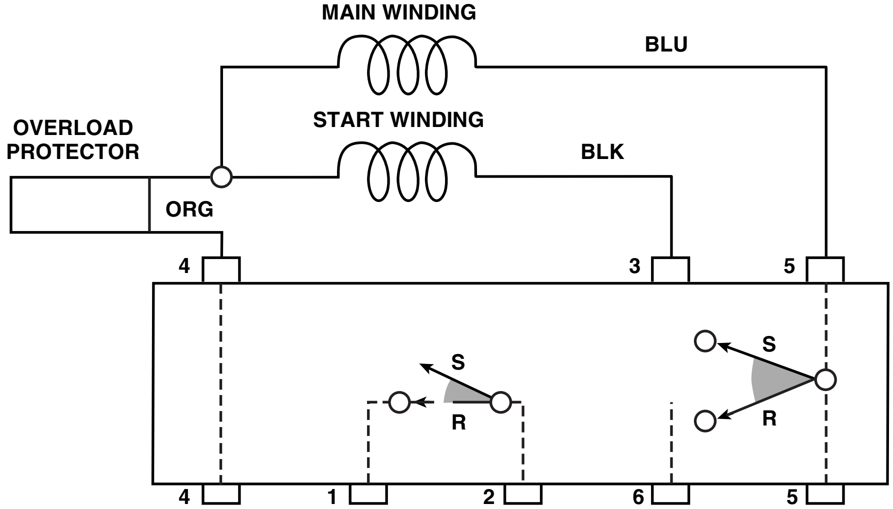
To reduce the risk of electric shock, fire, explosion, serious injury or death:

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- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1



GENERAL ELECTRIC MOTOR WITH INTERNAL SWITCH

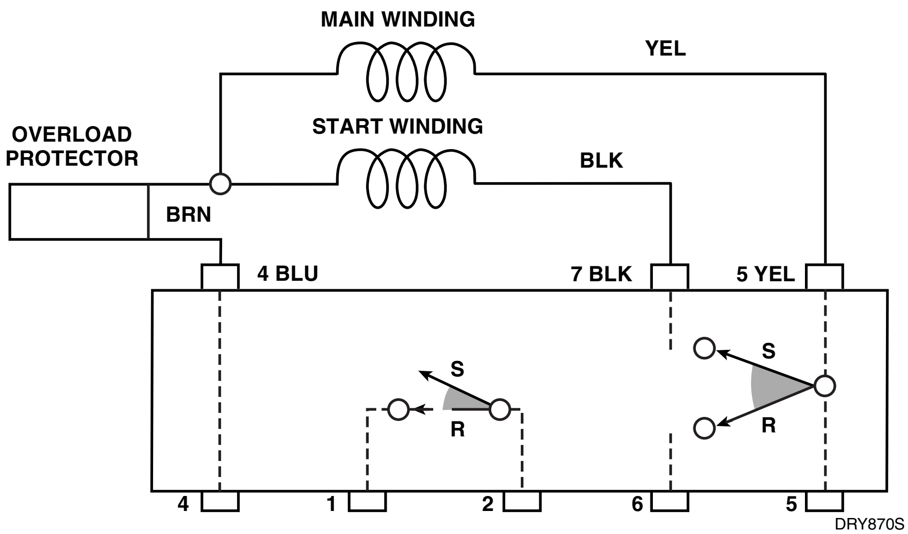


GENERAL ELECTRIC MOTOR WITH EXTERNAL SWITCH

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1



EMERSON MOTOR WITH EXTERNAL SWITCH

Section 10
Wiring Diagrams

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.
W030

WIRING DIAGRAMS AND SCHEMATICS FOUND ON THE FOLLOWING PAGES ARE FOR MODELS COVERED IN THIS MANUAL.

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

SELF-DIAGNOSTIC ROUTINE

ENTRY: FOLLOW THE SEQUENCE GIVEN BELOW

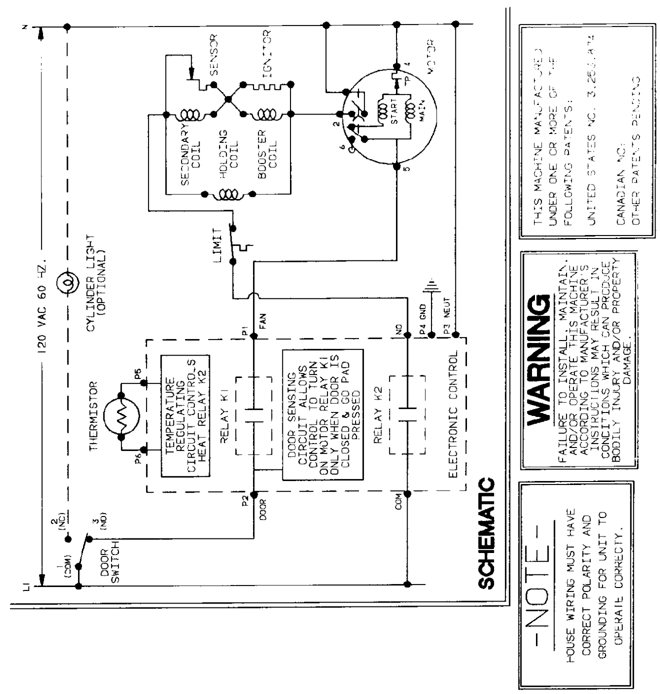
1. MAKE SURE DRYER DOOR IS CLOSED.
2. START IN THE IDLE MODE (ALL LEDS OFF).
3. PRESS THE SIGNAL AND GO (START) PADS SIMULTANEOUSLY.
4. IF UNABLE TO START ROUTINE CHECK DOOR SWITCH.

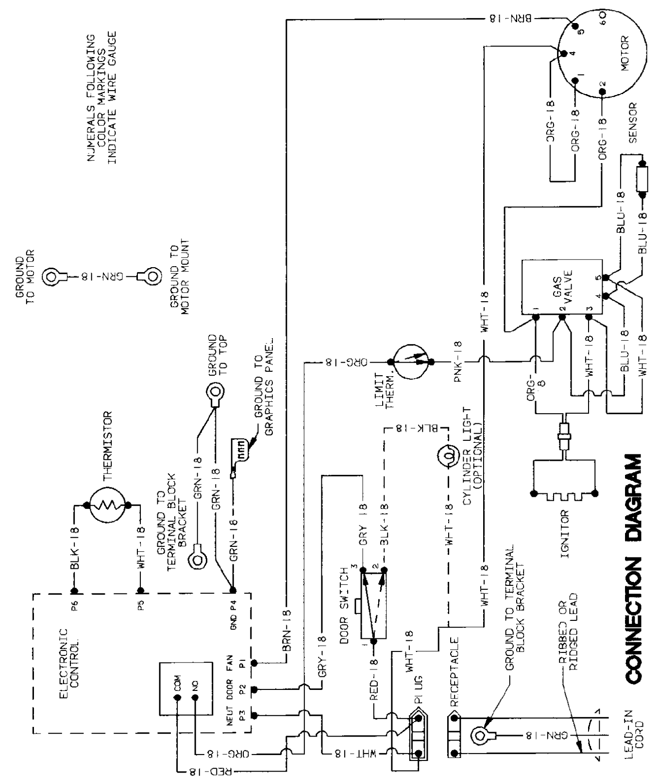
EXIT: DO ANY OF THE FOLLOWING.

1. PRESS ANY PAD.
2. OPEN DRYER DOOR.
3. UNPLUG THE DRYER.

L.E.D DISPLAY	ILLUMINATED L.E.D	MOTOR RELAY	HEAT RELAY	SIGNAL
99	NONE (ALL OFF)	ON	OFF	OFF
88	WRINKLE-FREE STATUS (EXTENDED TUMBLE STATUS)	OFF	OFF	OFF
77	COOL DOWN	OFF	OFF	OFF
66	DRYING	OFF	OFF	OFF
55	CLEAN FILTER	OFF	OFF	OFF
44	MEMORY SAVE	OFF	OFF	OFF
33	DAMP	OFF	OFF	OFF
22	NORMAL	OFF	OFF	OFF
11	EXTRA DRY (MORE)	OFF	OFF	OFF
00	VERY DRY (MAXIMUM)	OFF	OFF	OFF
99	NONE (ALL OFF)	OFF	OFF	SOFTEST
88	NONE (ALL OFF)	OFF	OFF	MEDIUM
77	NONE (ALL OFF)	OFF	OFF	LOUDEST
66	SIGNAL	OFF	OFF	OFF
55	WRINKLE-FREE SELECT (EXTENDED TUMBLE SELECT)	OFF	OFF	OFF
44	NO HEAT (FLUFF)	OFF	OFF	OFF
33	KNITS	OFF	OFF	OFF
22	DELICATES	OFF	OFF	OFF
11	PERM PRESS	OFF	OFF	OFF
00	REGULAR	OFF	OFF	OFF
99	NONE (ALL OFF)	OFF	ON	OFF
88	NONE (ALL OFF)	ON	ON	OFF

1. THIS TEST ROUTINE WILL ONLY LIGHT THE LEDS PERTAINING TO THE HARDWARE MODEL SELECTED.
2. WHEN THE LAST STEP IN THE TABLE IS FINISHED THE ROUTINE SEQUENCE WILL REPEAT.
3. EACH OUTPUT IS ON FOR 2 SECONDS.



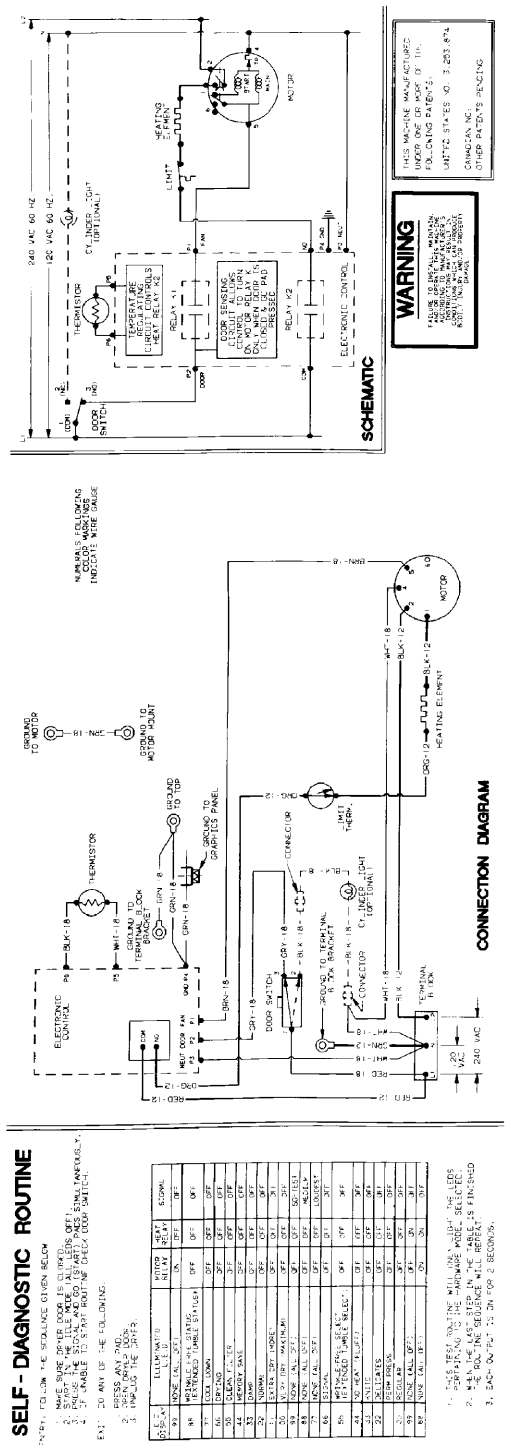


MODELS AG9139, NG8639, NG8539, NG8339, AG7139, NG6539 AND NG6339

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

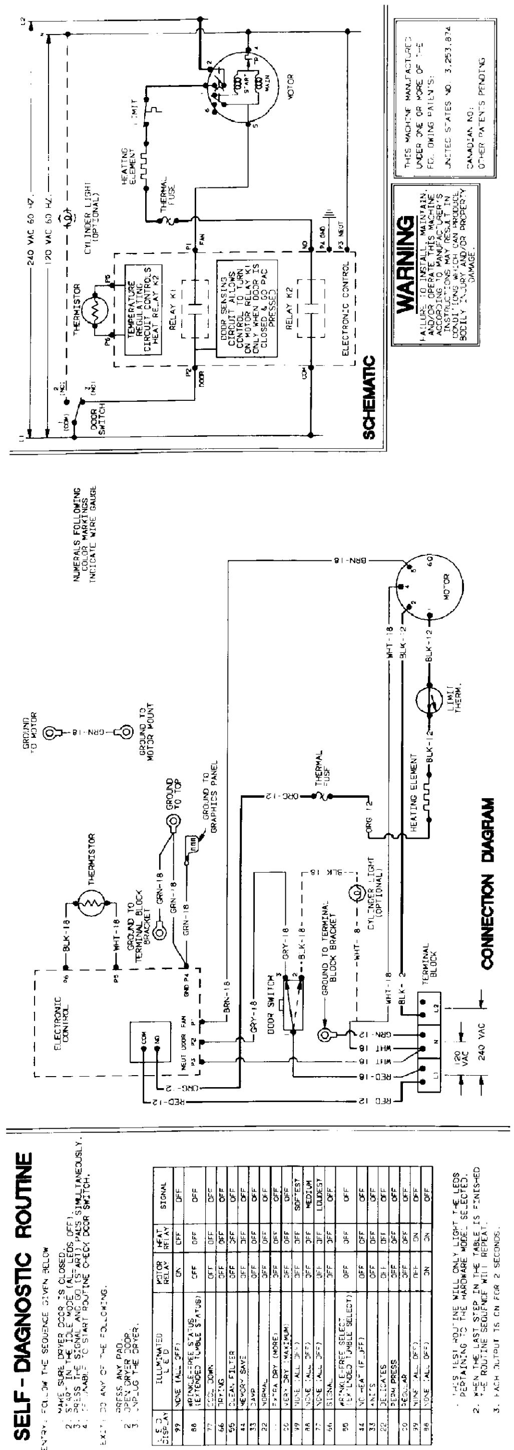


MODELS AE9133, NE8633, NE8533, NE8333, AE7133, NE6533 AND NE6333
Through Serial No. S6271975XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

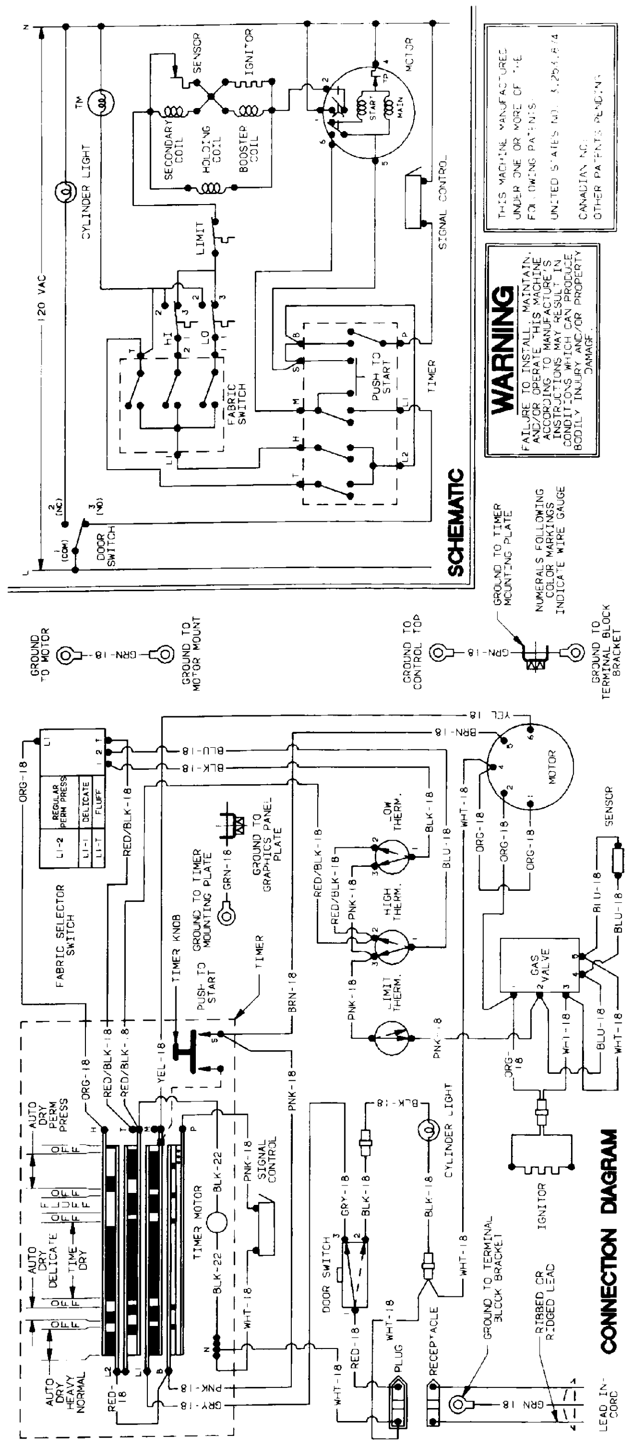


MODELS AE9133, NE8633, NE8533, NE8333, AE7133, NE6533 AND NE6333
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

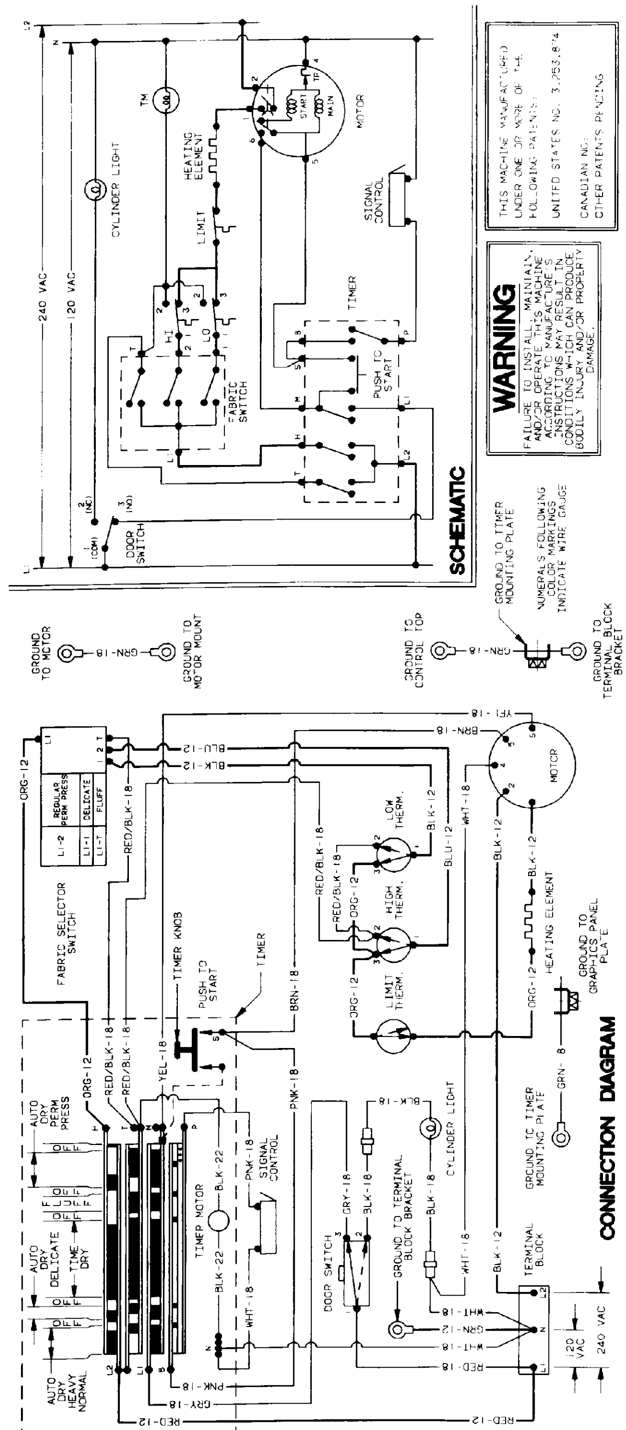


MODELS NG7519 AND NG7319

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

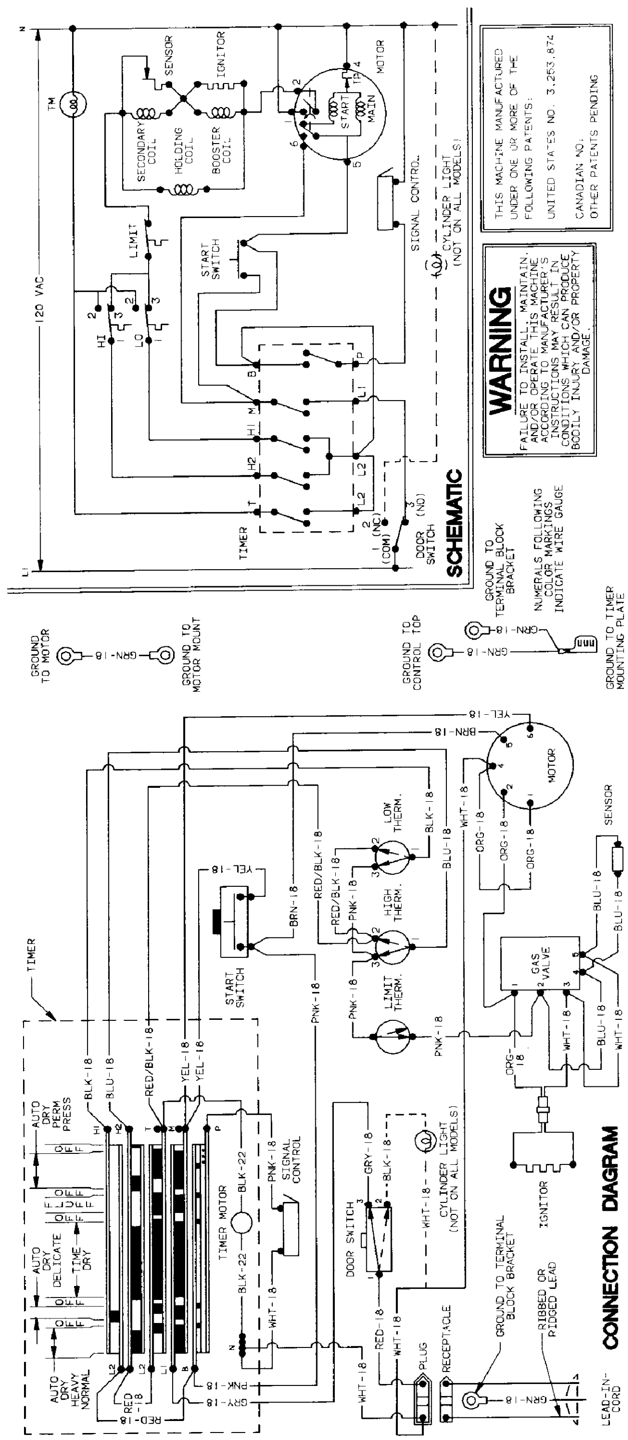


MODELS NE7513 AND NE7313

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

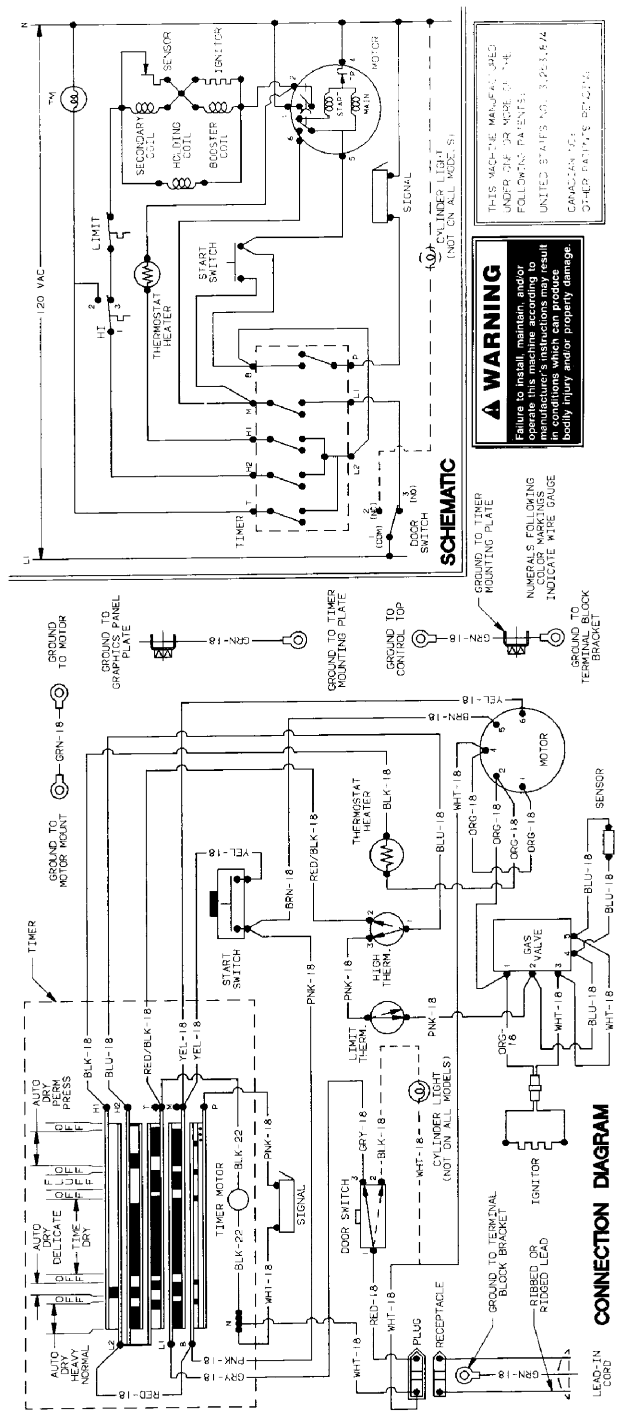


MODELS NG6619, NG5519, NG5319 AND AG5119
Through Serial No. S6271975XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

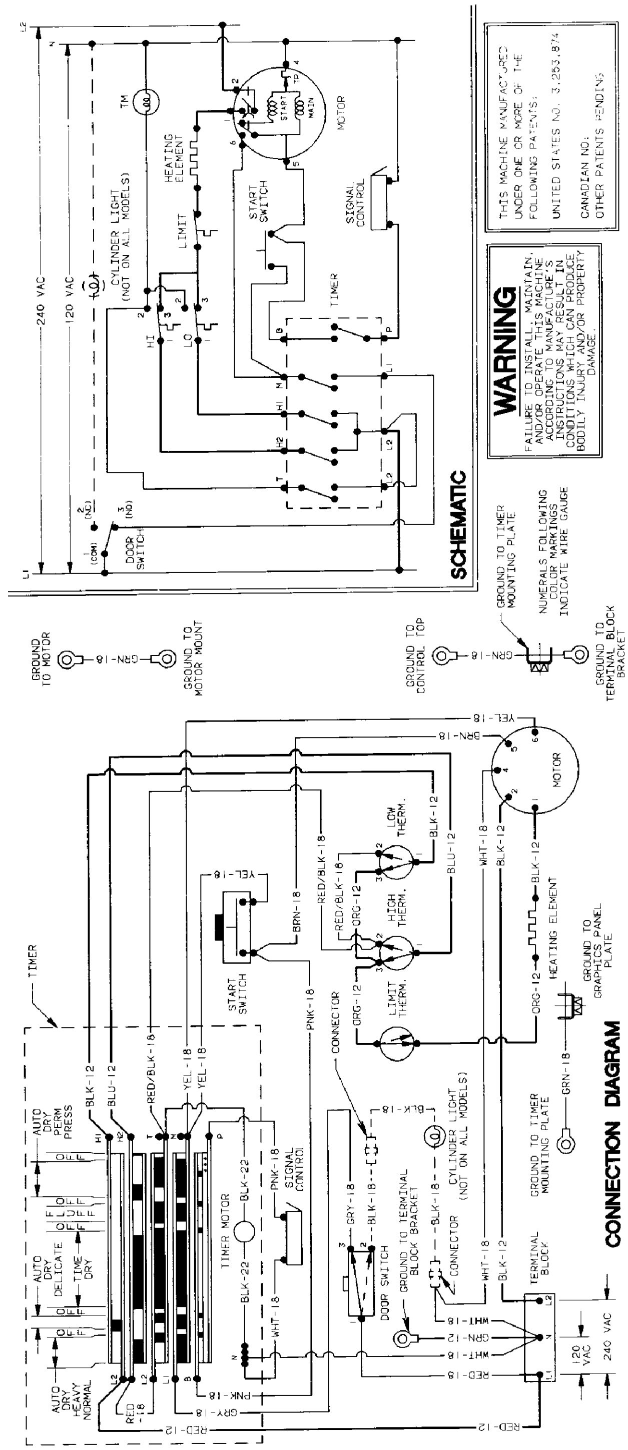


MODELS NG6619, NG5519, NG5319 AND AG5119
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

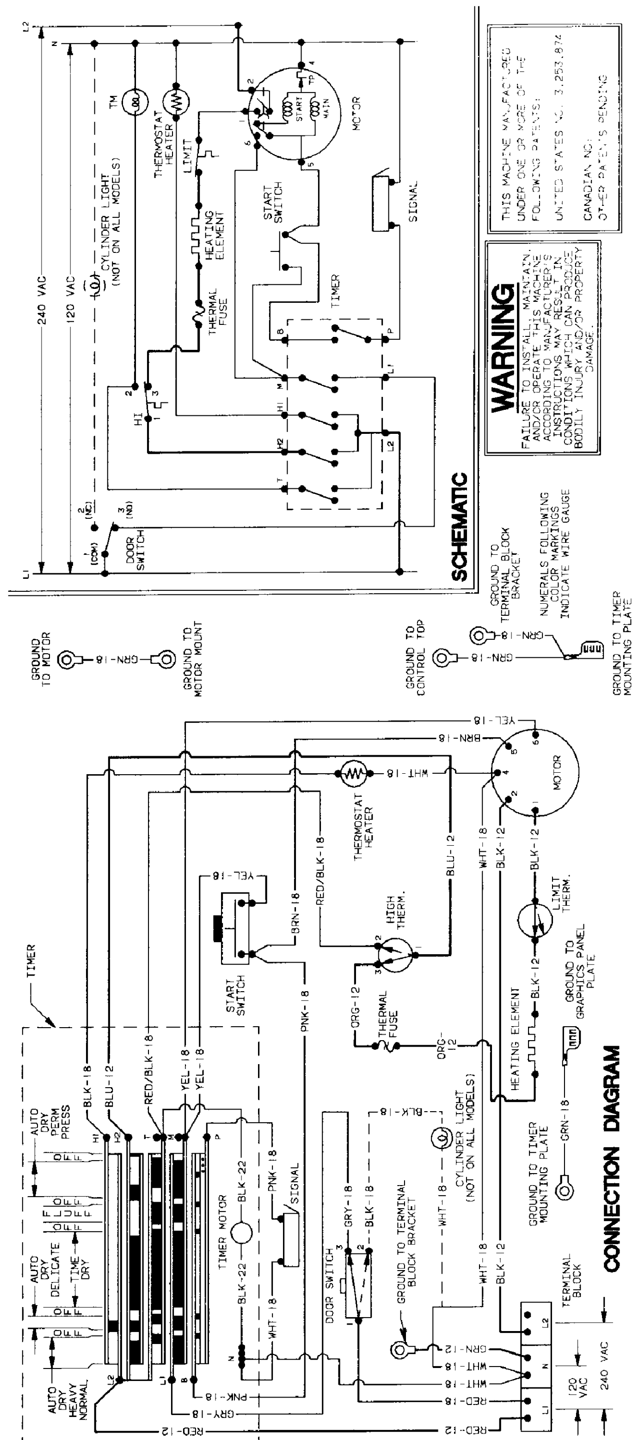


MODELS NE6613, NE5513, NE5313 AND AE5113
Through Serial No. S6271975XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

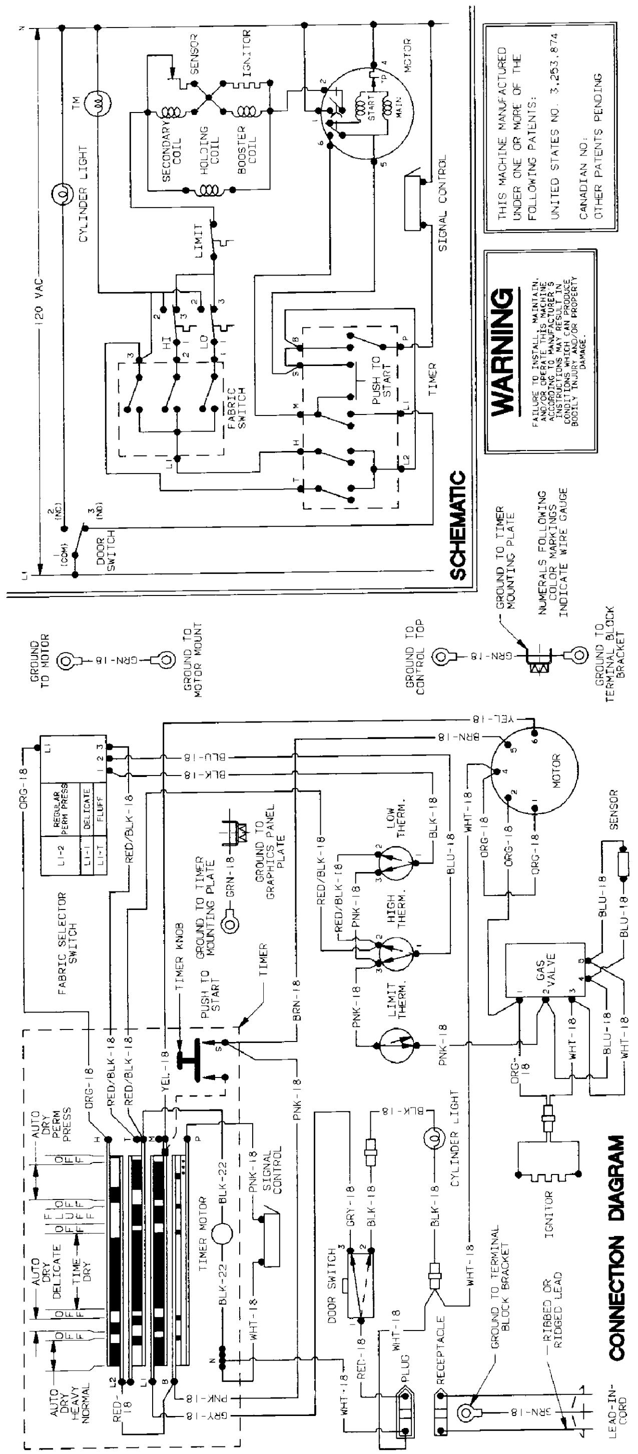


MODELS NE6613, NE5513, NE5313 AND AE5113
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

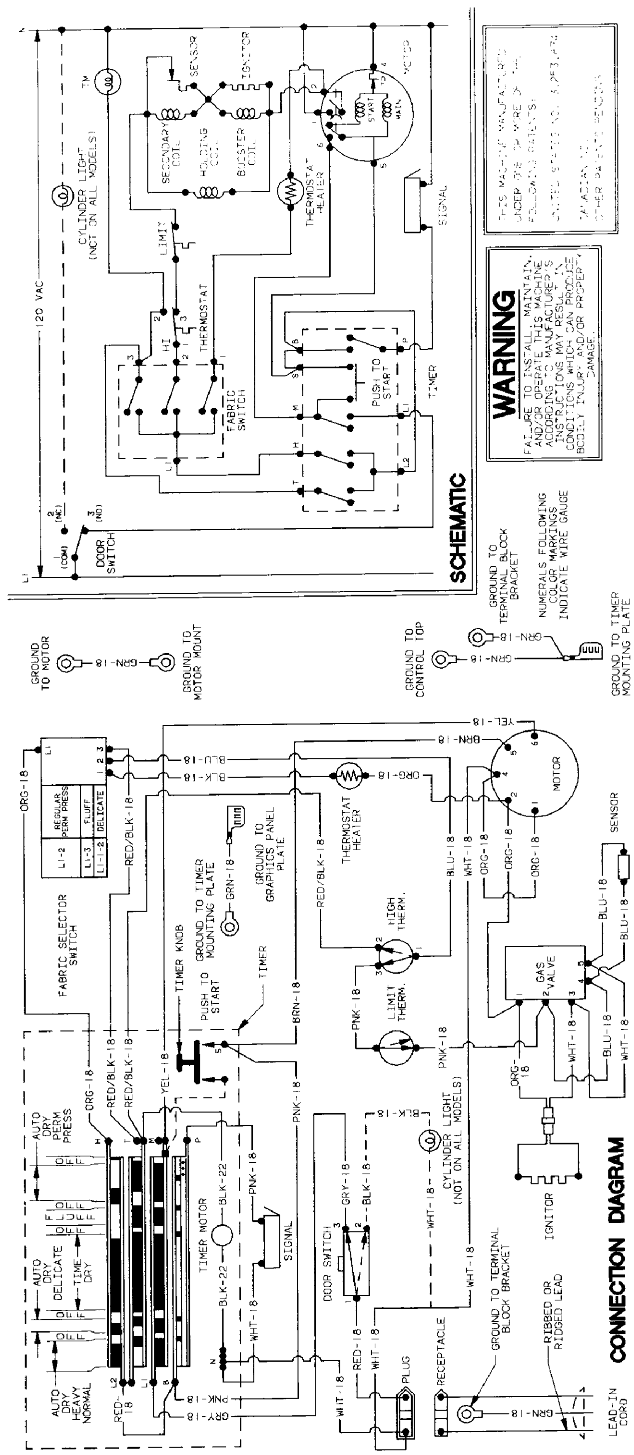


MODELS NG6519 AND NG6319
Through Serial No. S6271975XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

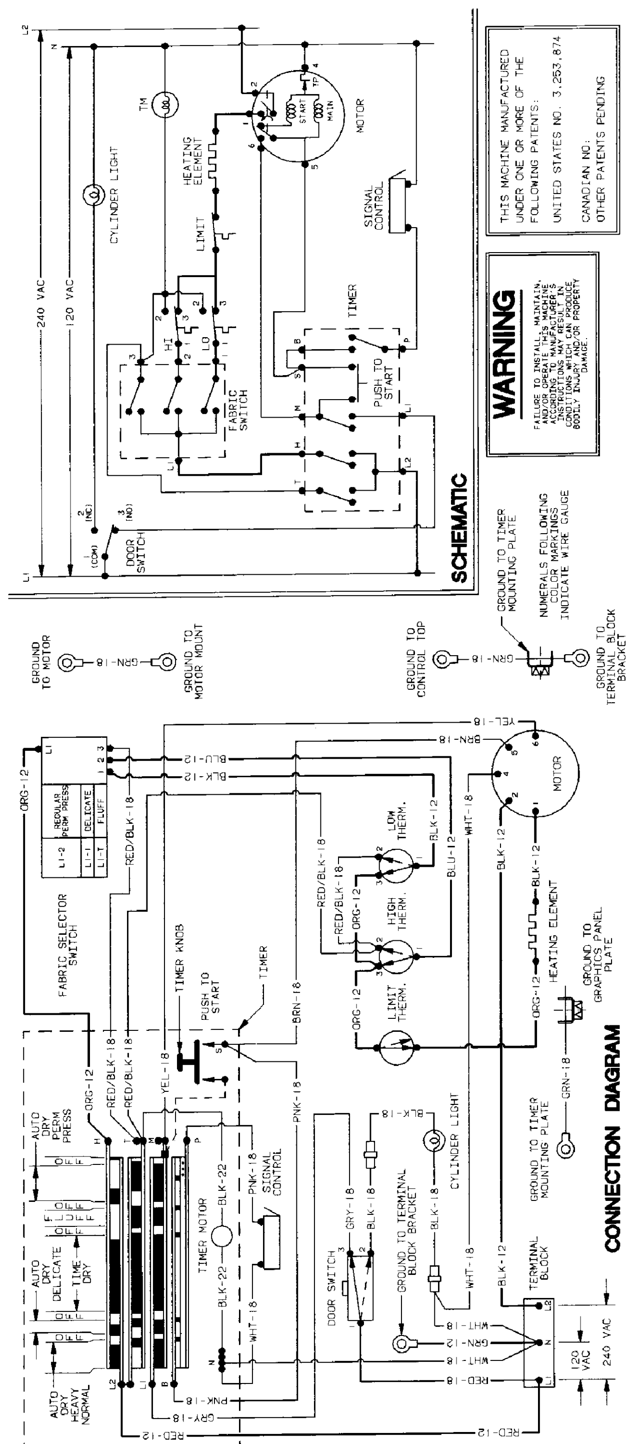


MODELS NG6519 AND NG6319
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

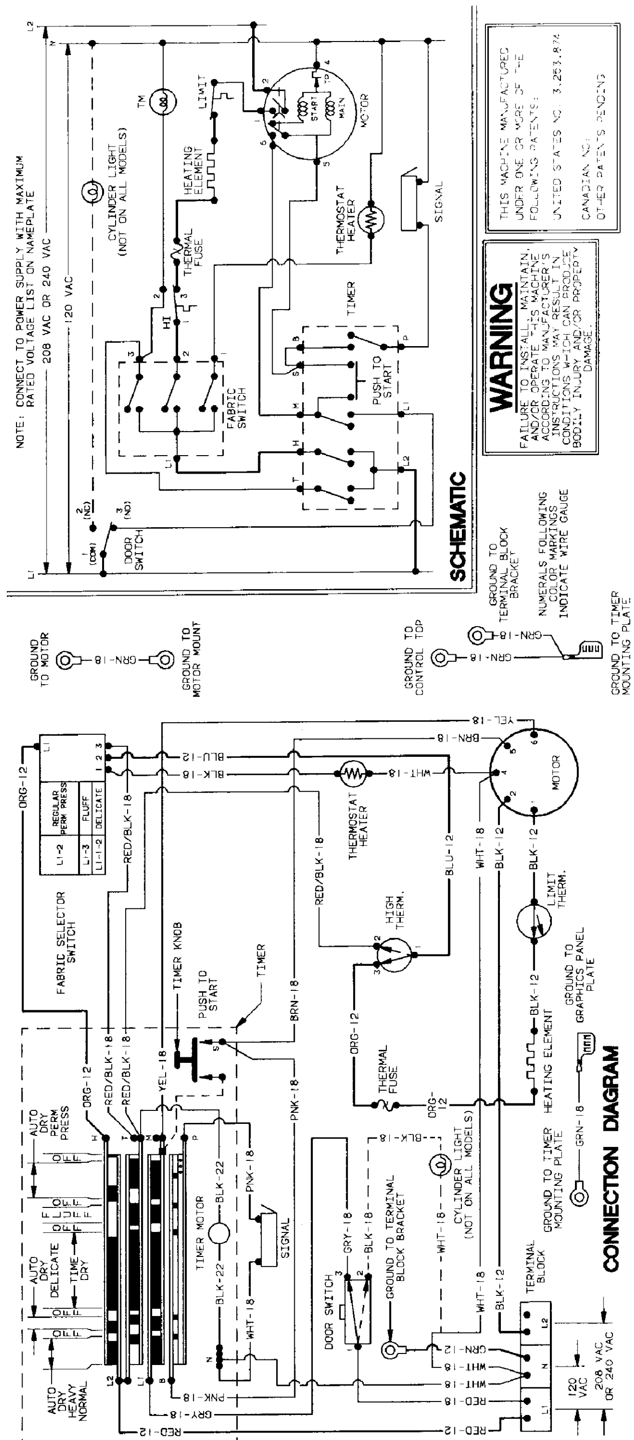


MODELS NE6513 AND NE6313
Through Serial No. S6271975XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

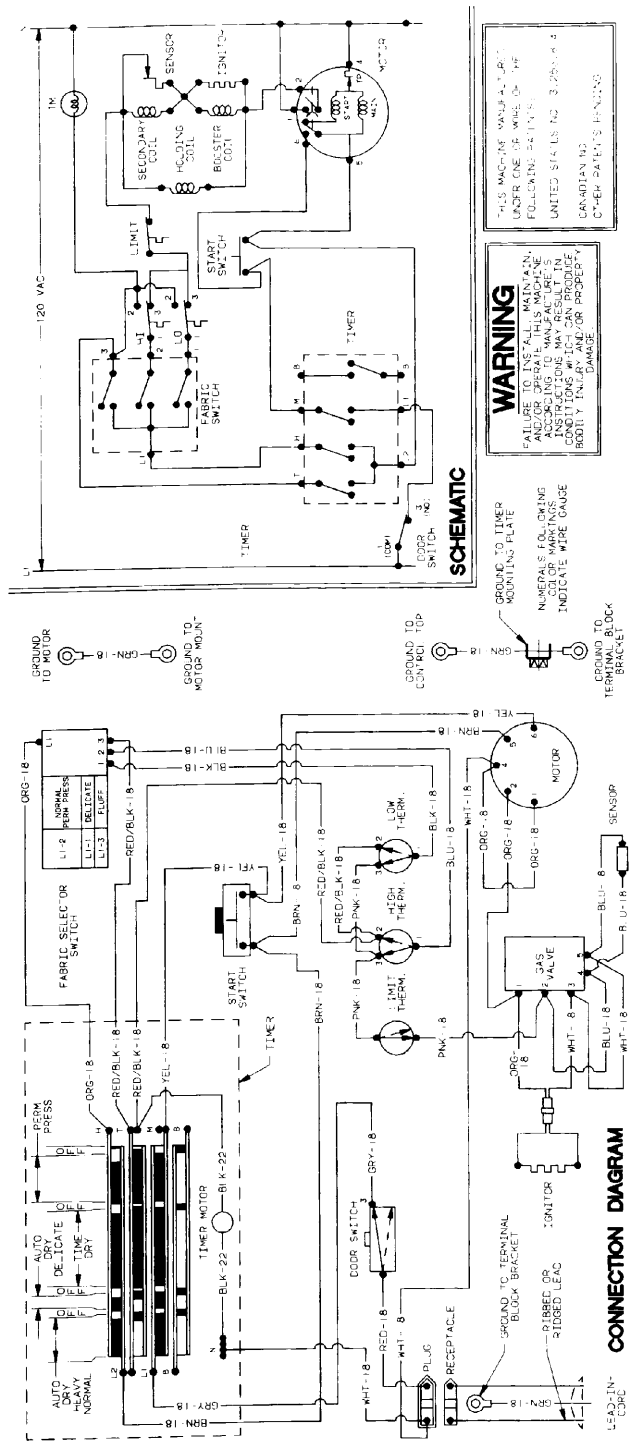


MODEL NE6513 AND NE6313
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

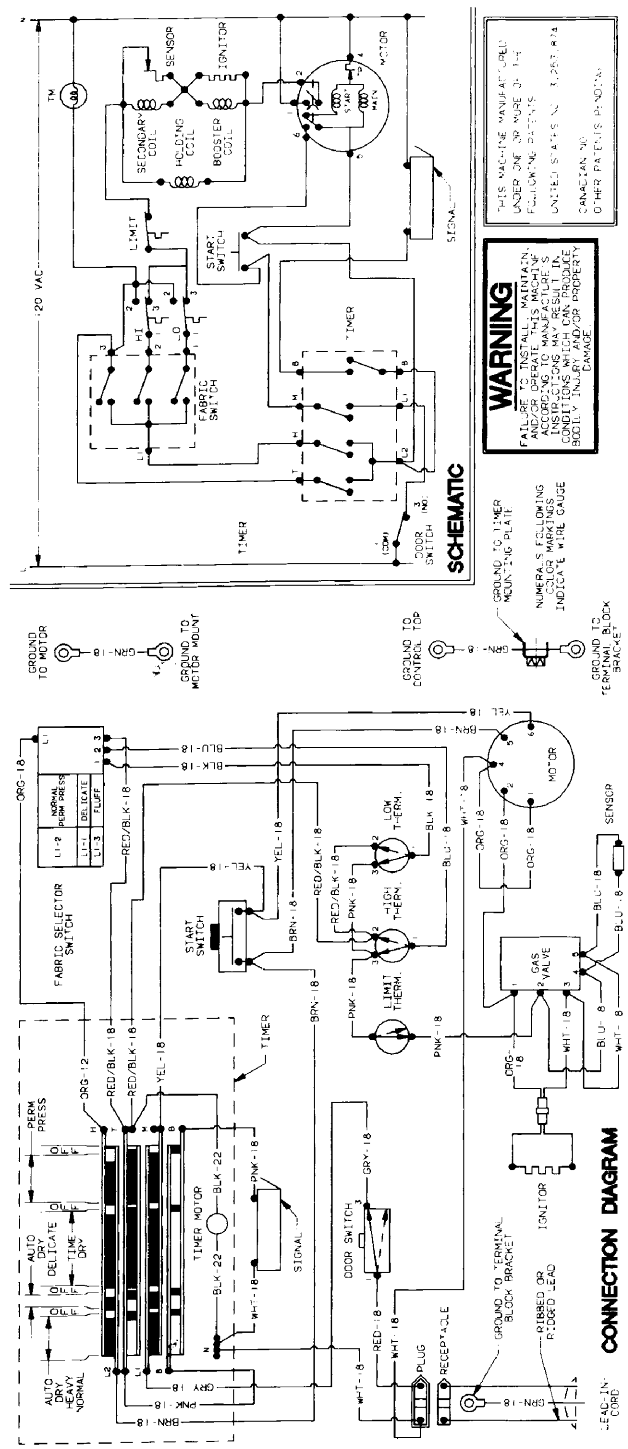


MODELS NG4519 AND NG4319
Through Serial No. S6242593XD

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

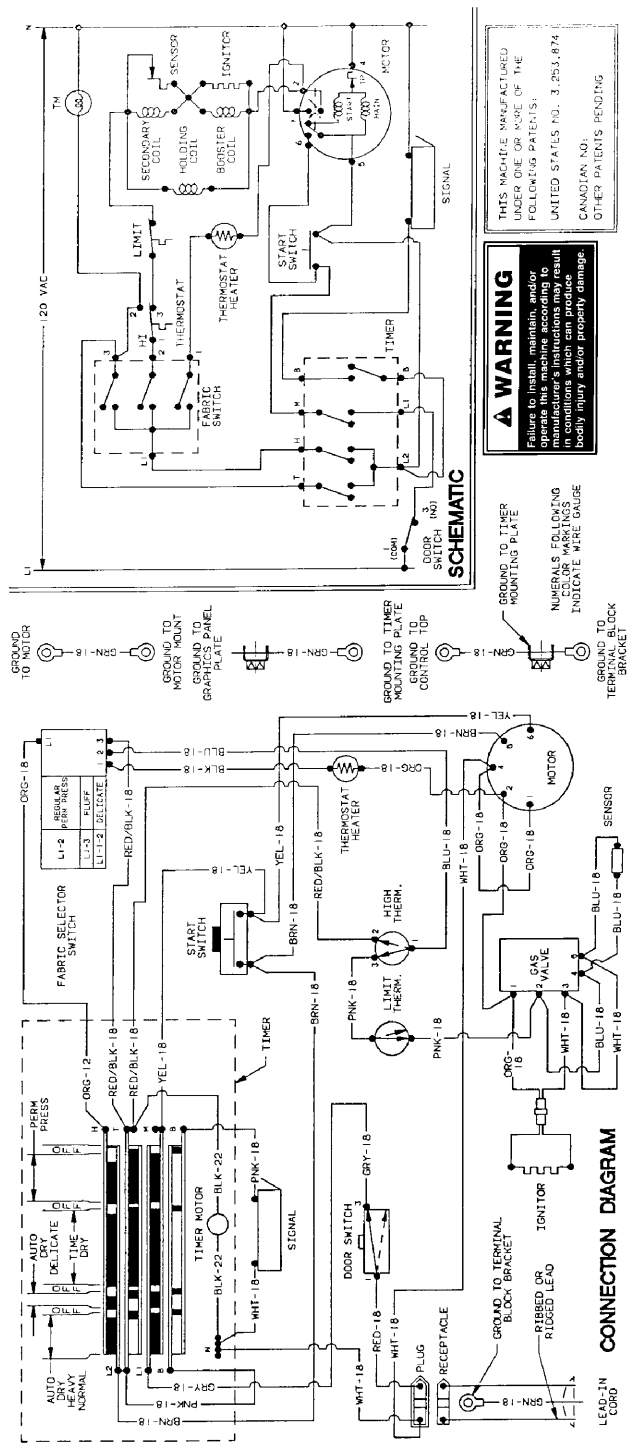


MODEL VG5019, NG4519 AND NG4319
Starting Serial No. S6242594XD and continuing through Serial No. S6271975XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

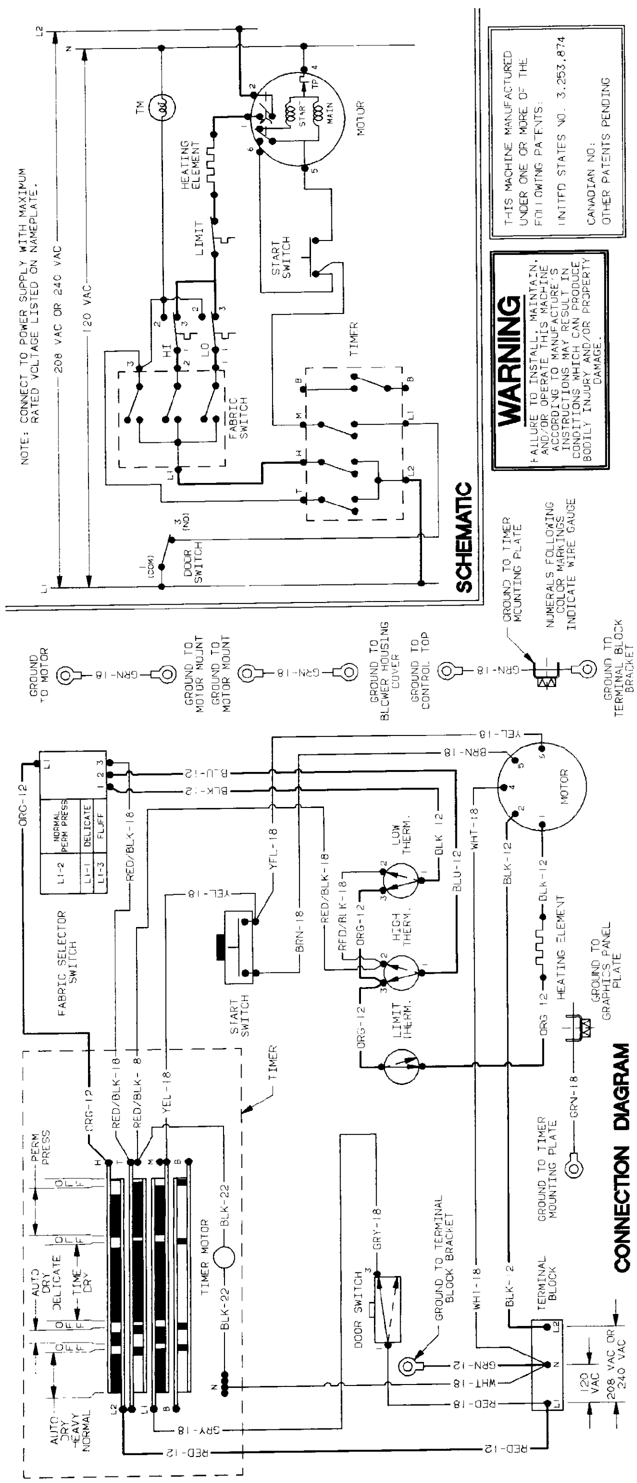


MODEL VG5019, NG4519 AND NG4319
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

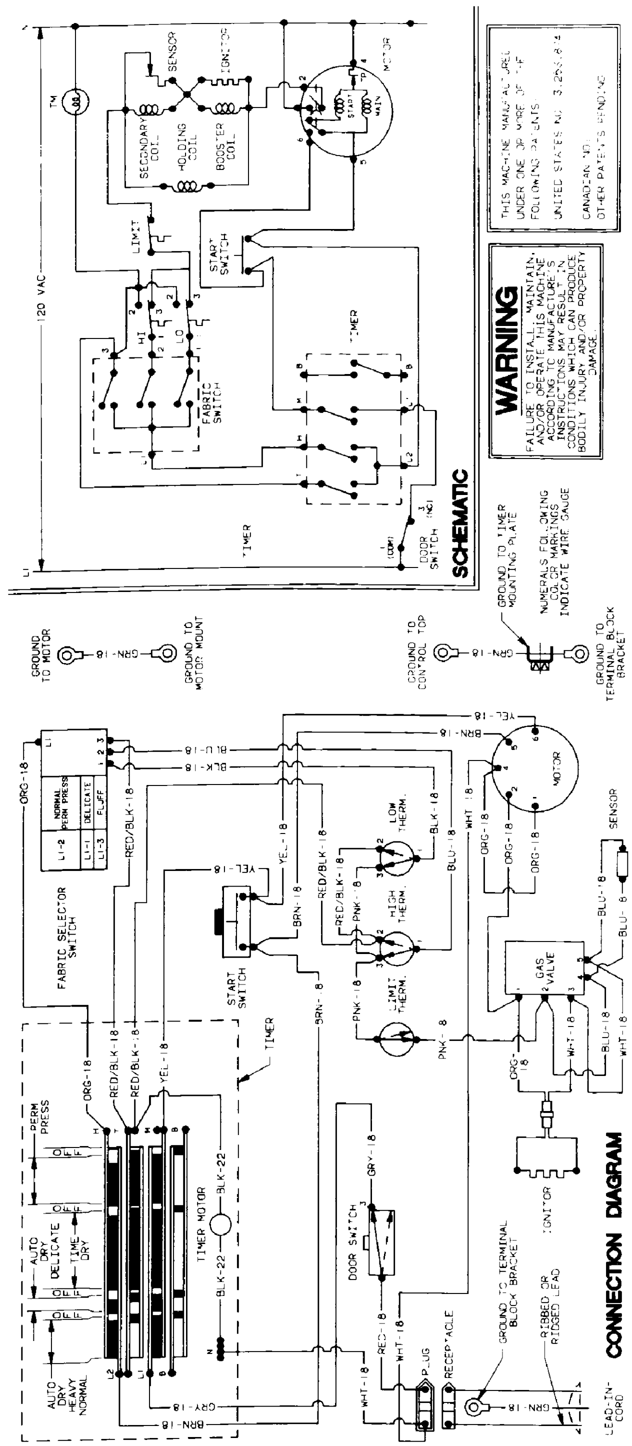


MODEL VE5013

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

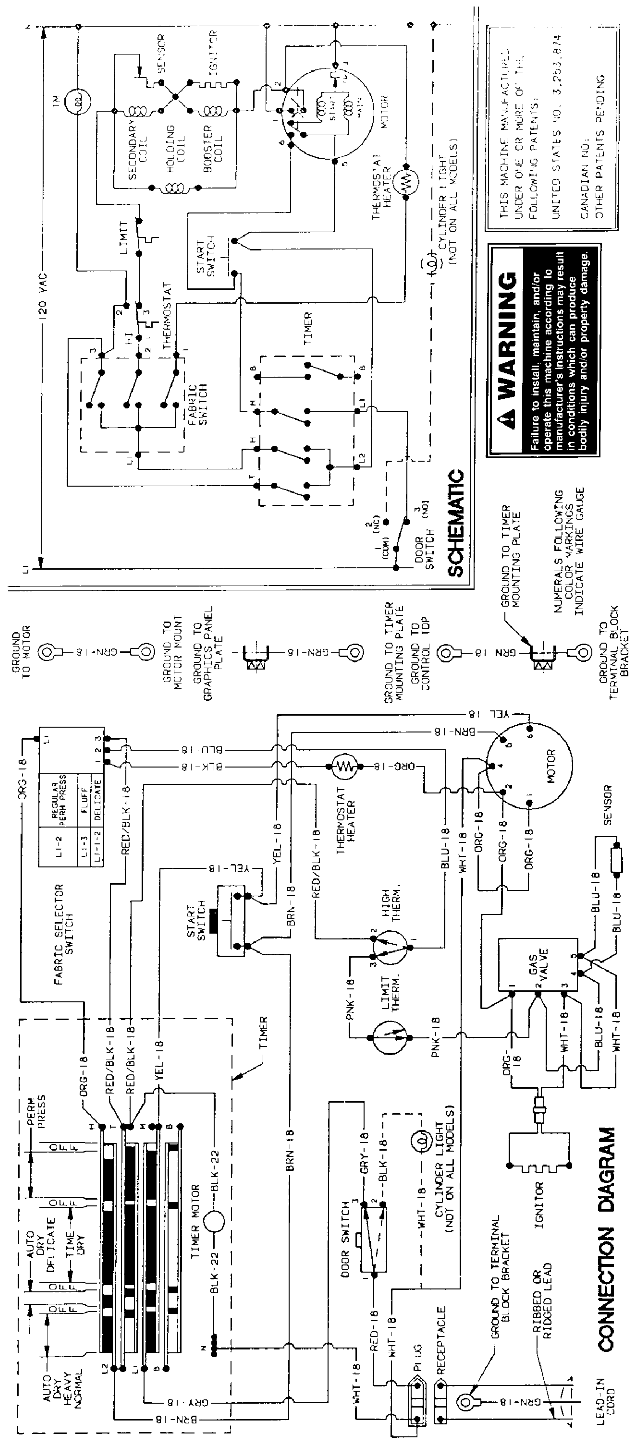


MODEL NG4719 AND NG4619
Through Serial No. S6242593XD

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

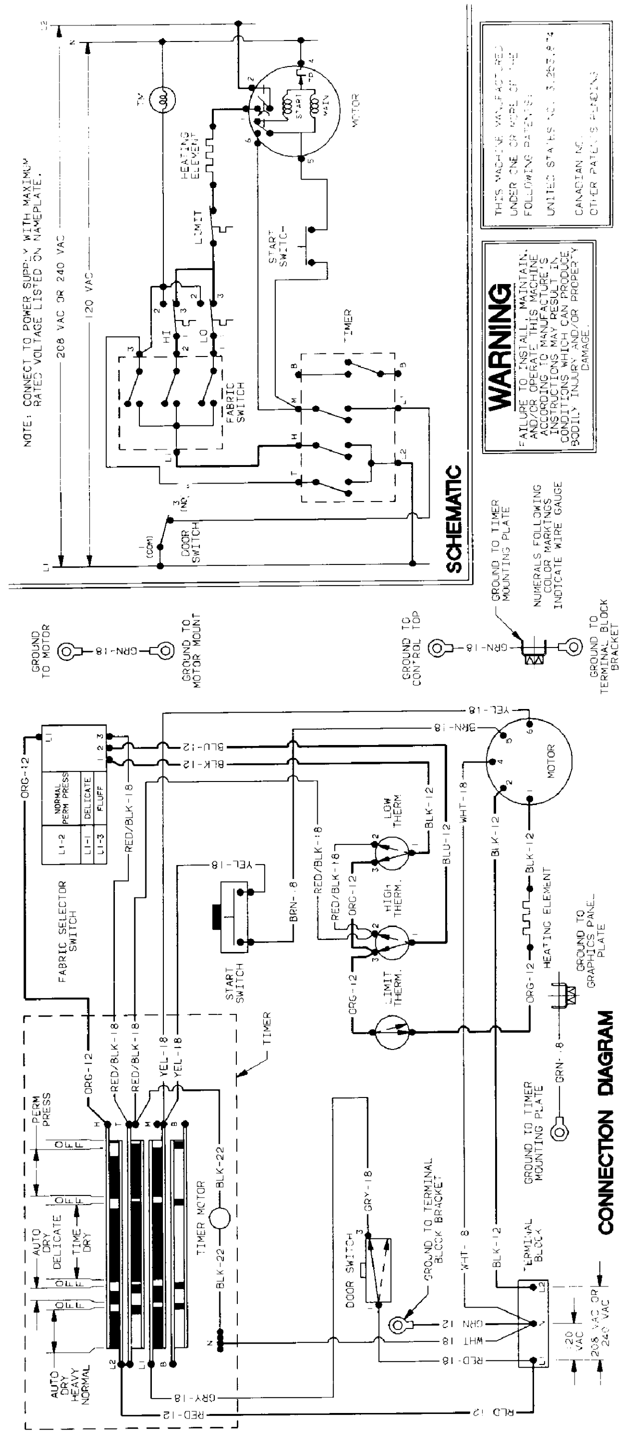


MODEL NG4719 AND NG4619
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

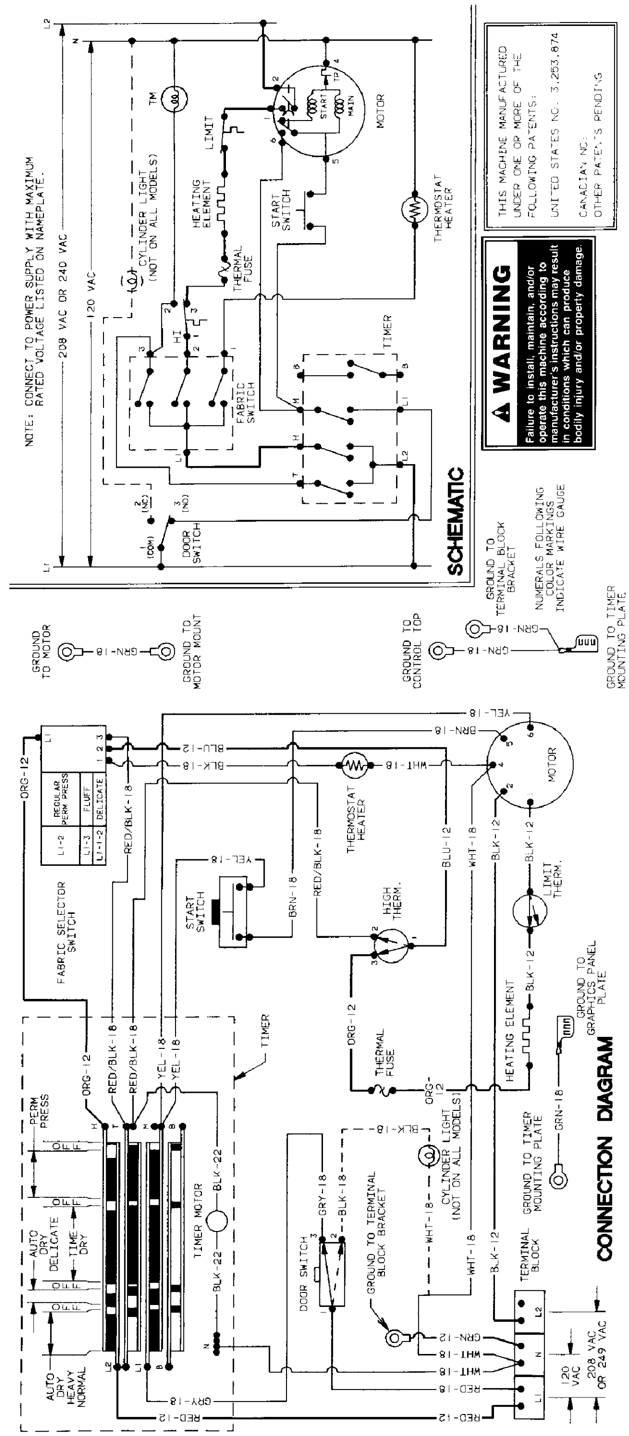


MODEL NE4713 AND NE4613
Through Serial No. S6242593XD

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

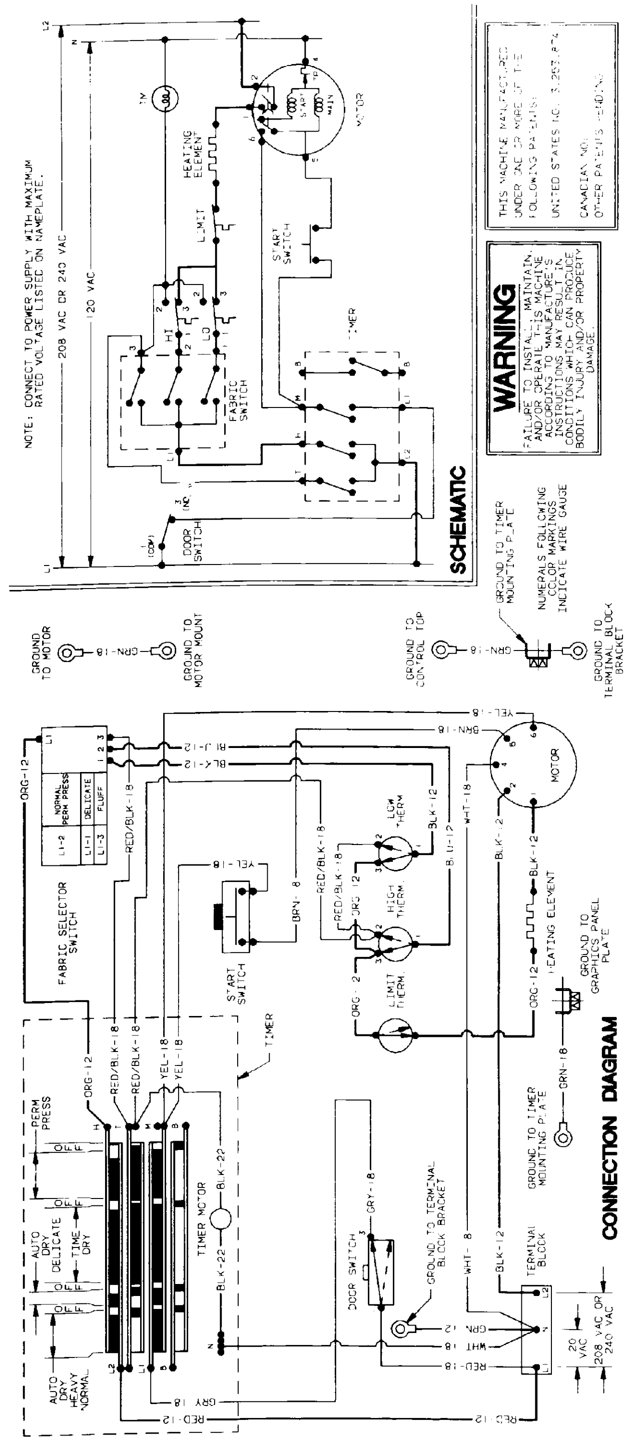


MODEL NE4713 AND NE4613
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

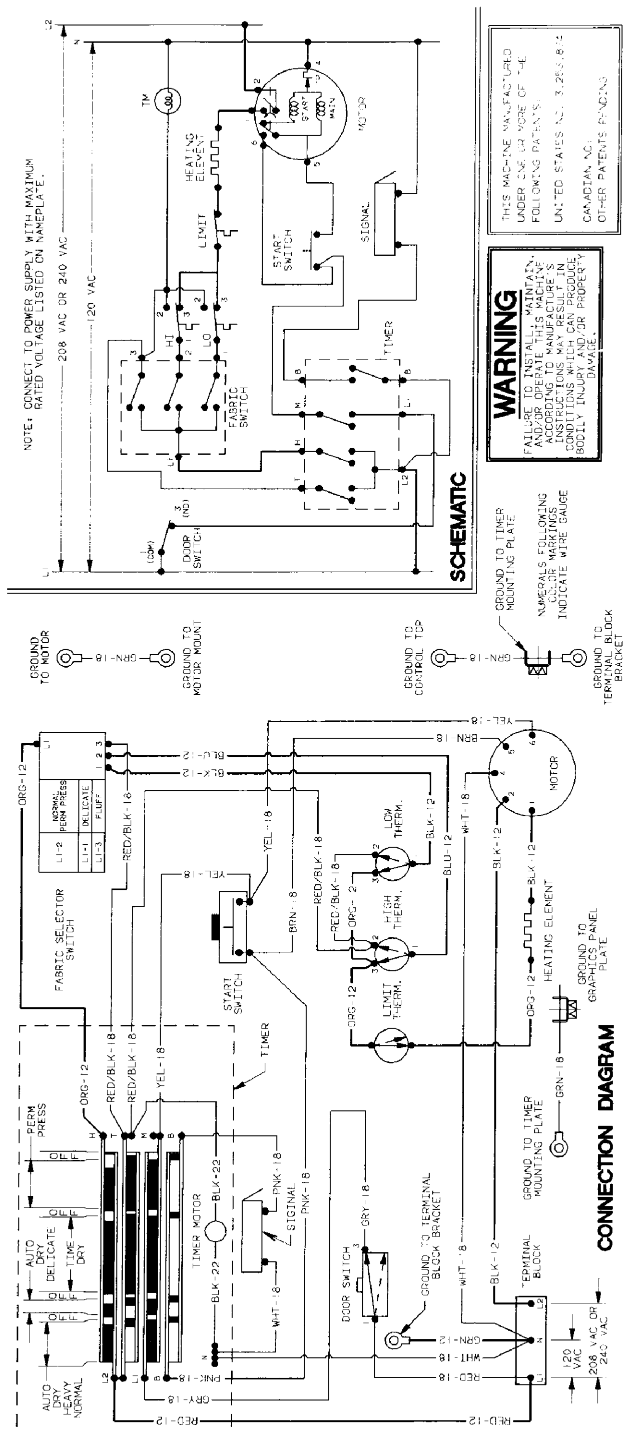


MODEL NE4513 AND NE4313
Through Serial No. S6242593XD

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030



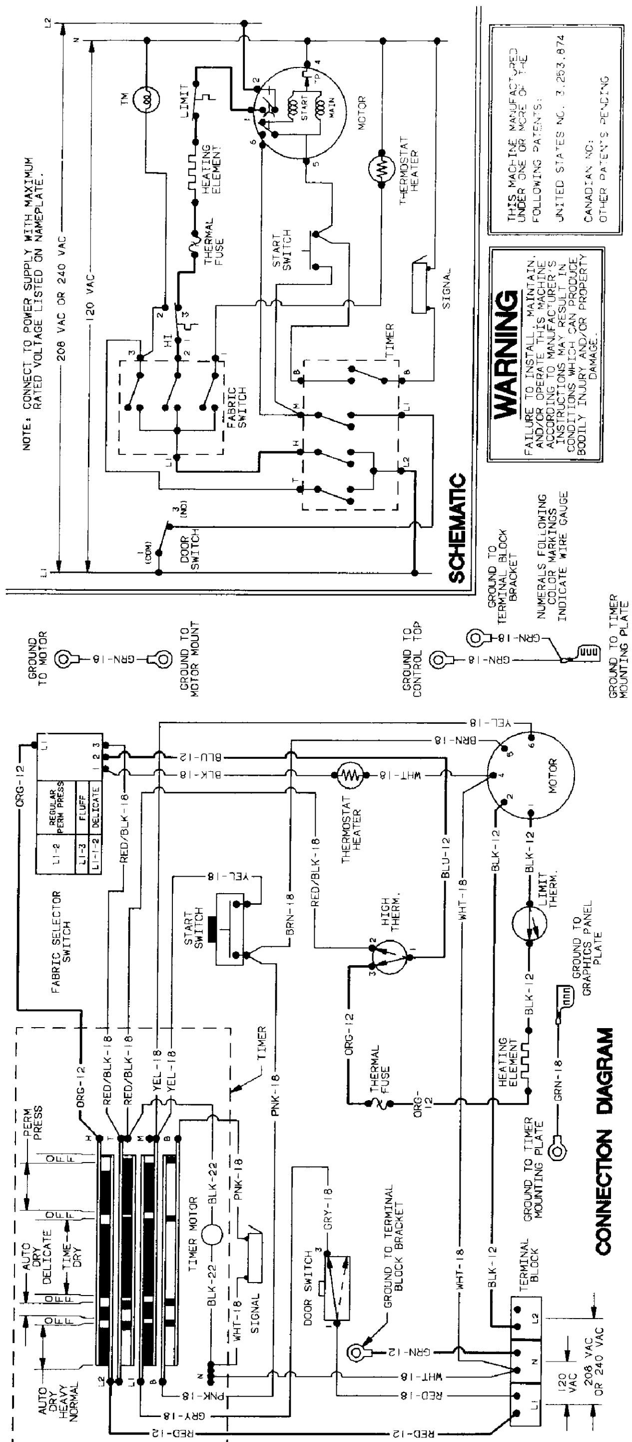
MODEL NE4513 AND NE4313

Starting Serial No. S6242594XD and continuing through Serial No. S6271975XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

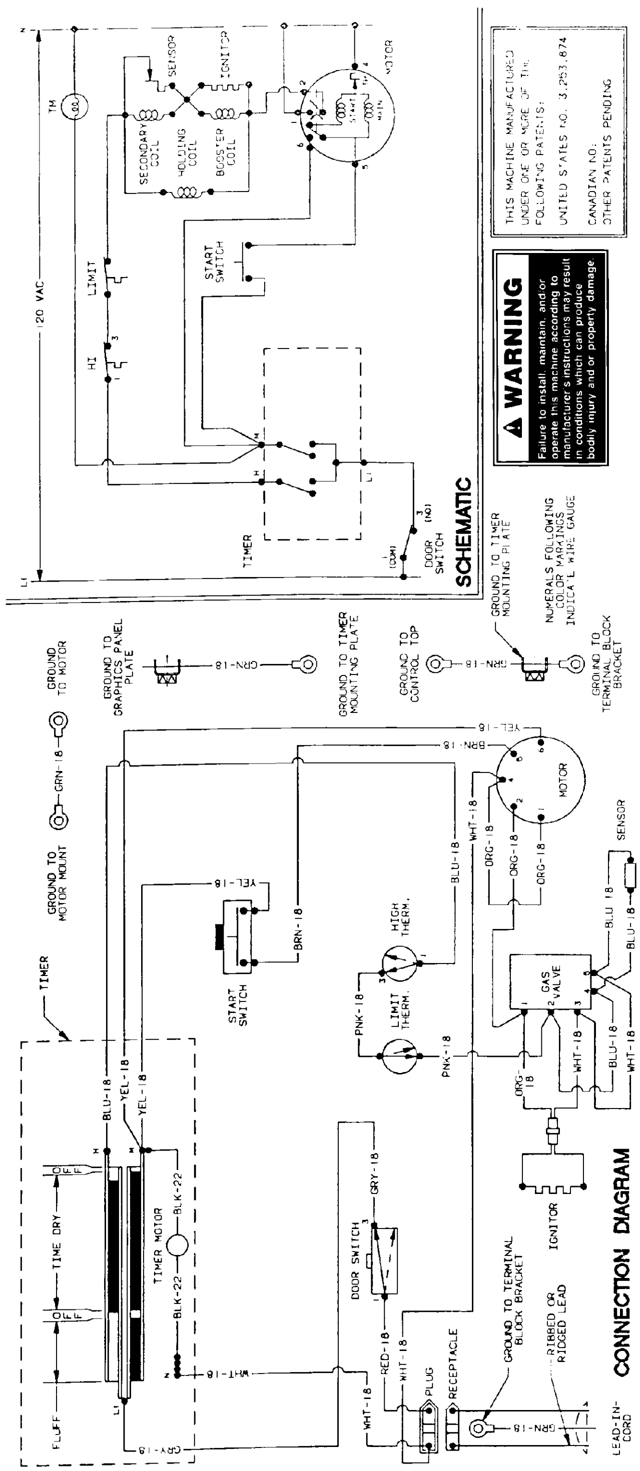


MODEL NE4513 AND NE4313
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

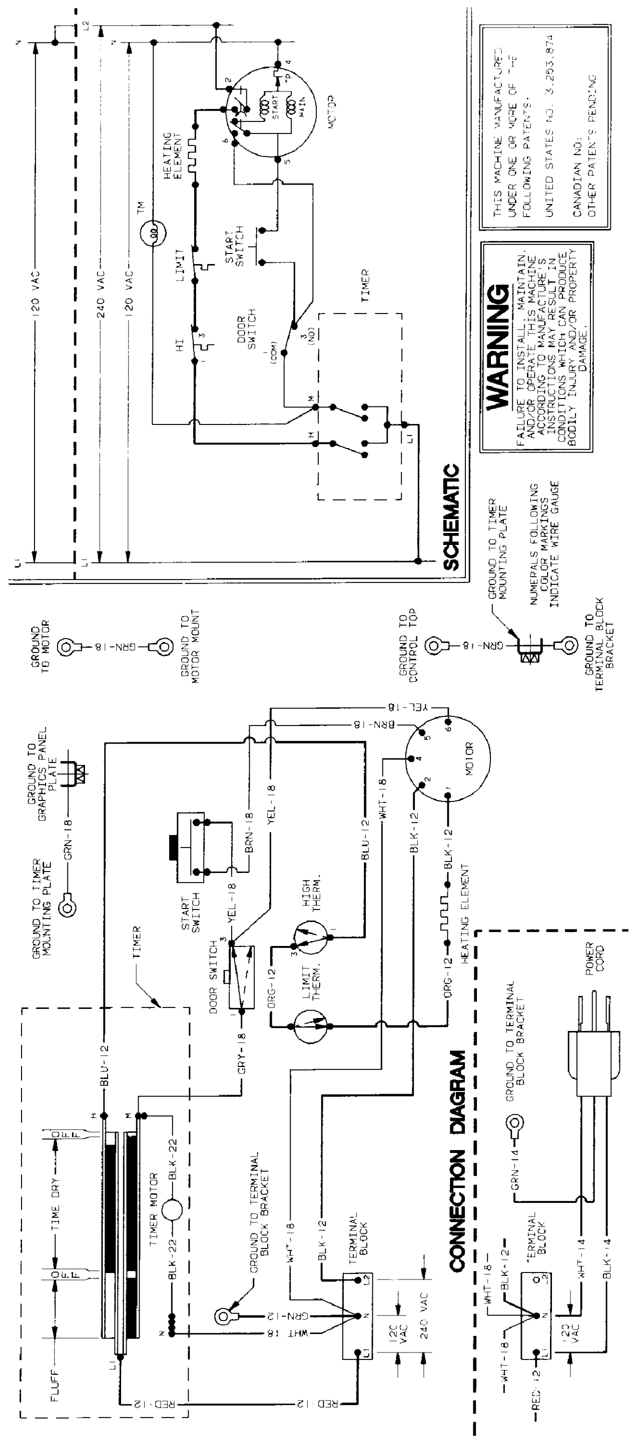


MODELS AG4119, NG3519, NG3319 AND VG3019

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

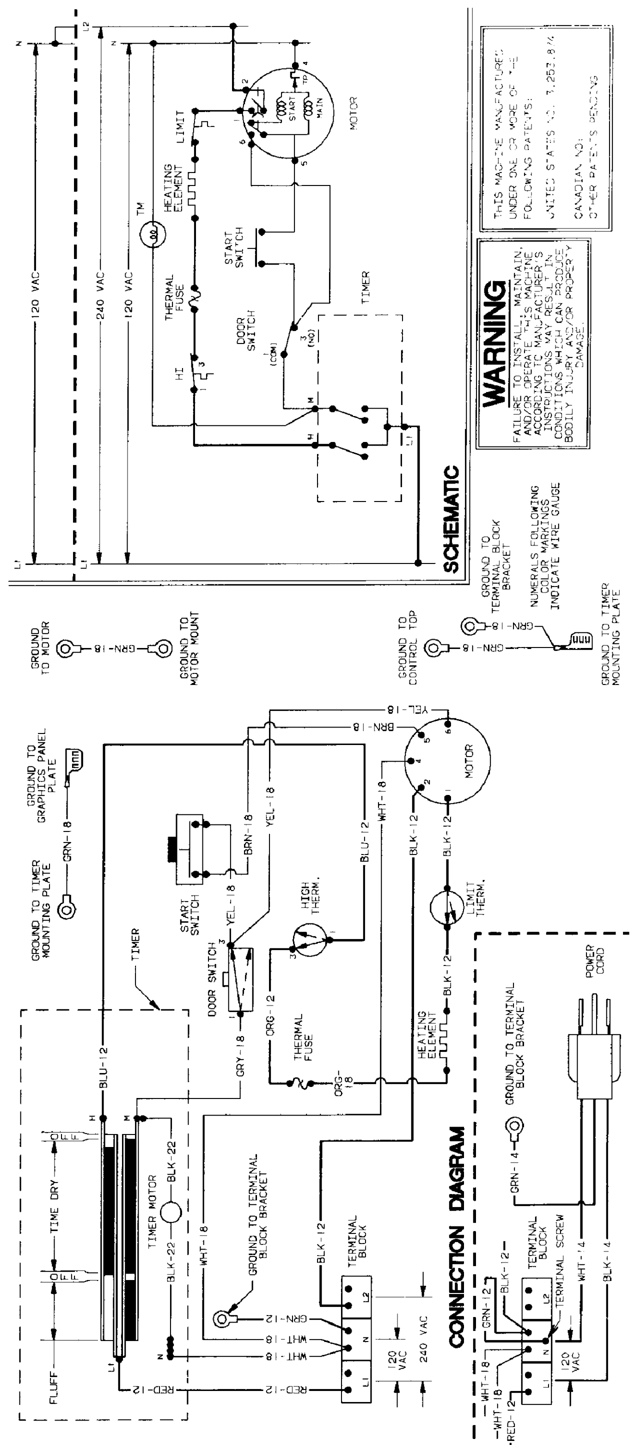


MODELS AE4113, NE3513 AND NE3313
Through Serial No. S6242593XD

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

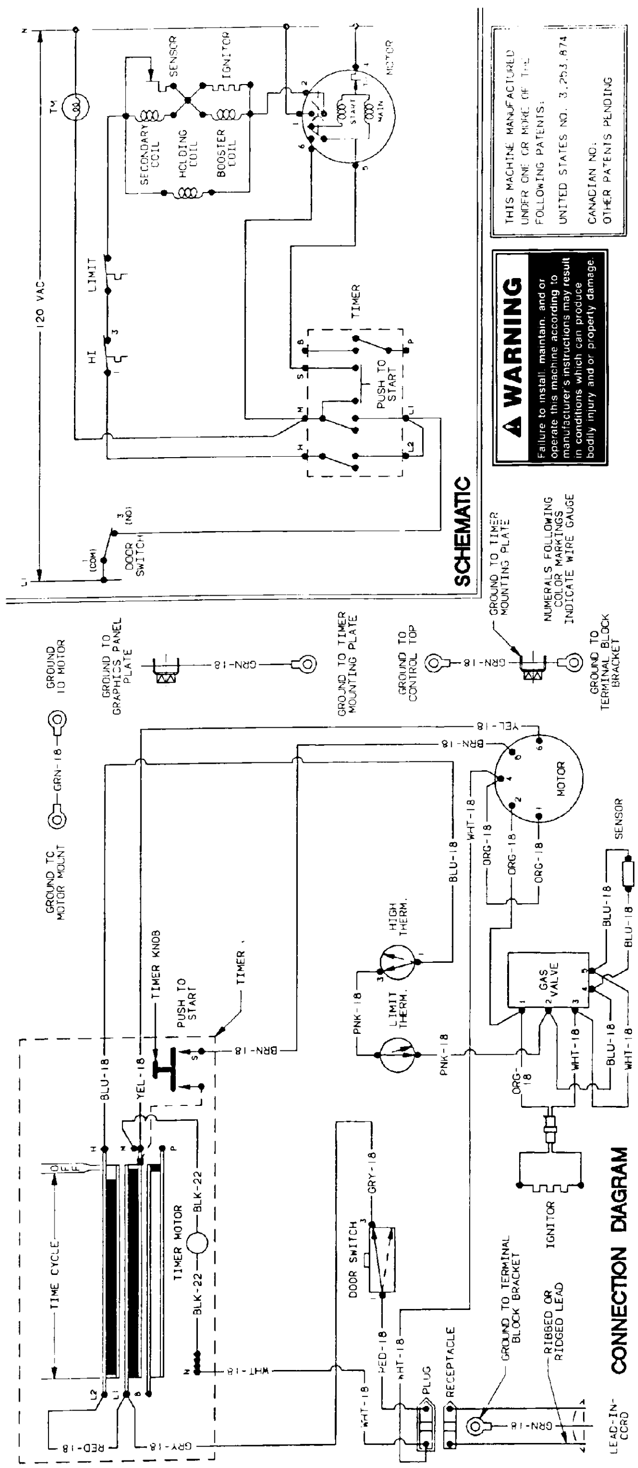


MODELS AE4113, NE3513 AND NE3313
Starting Serial No. S6271976XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

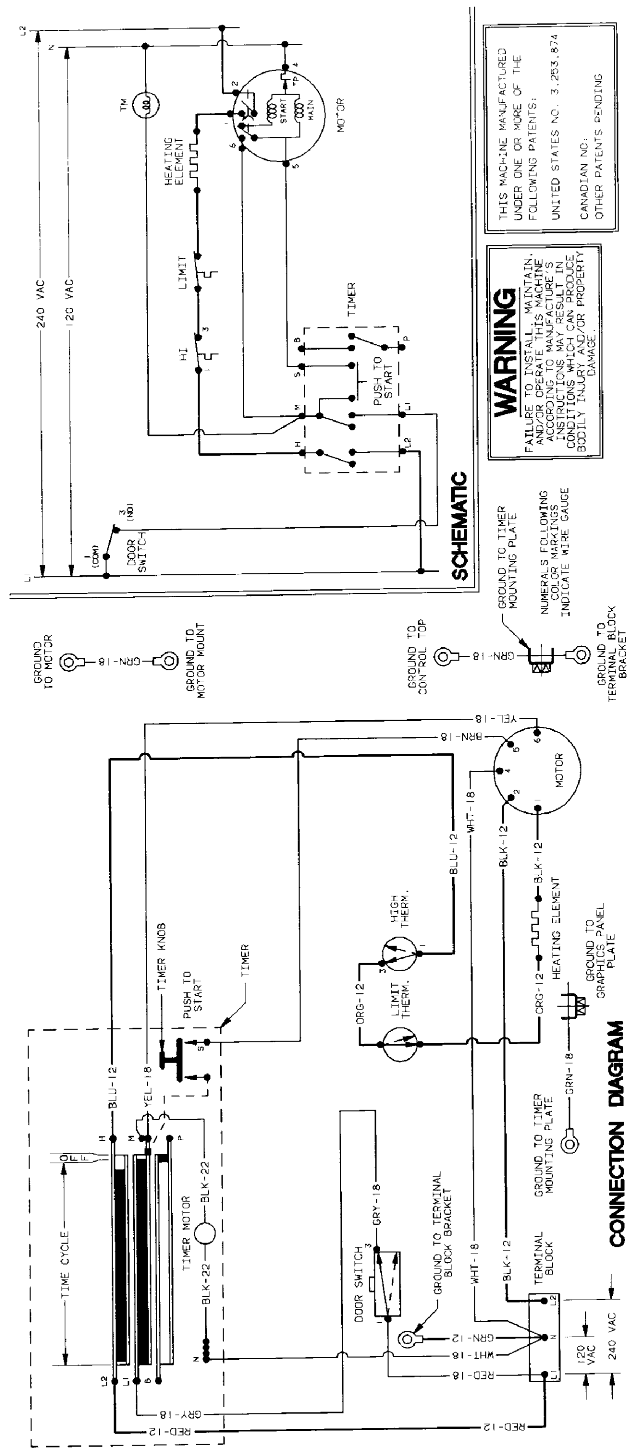


MODELS NG2119

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

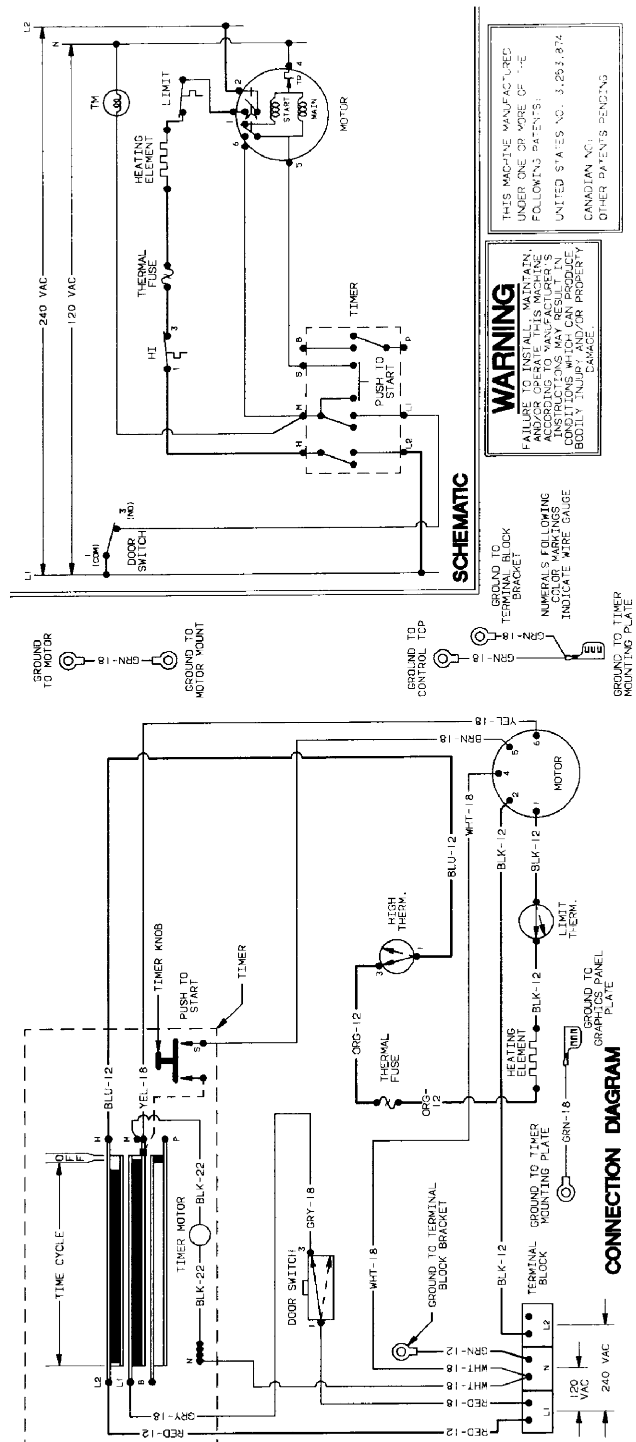


MODELS NE2113
Through Serial No. S6271975XG

WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030



MODELS NE2113
Starting Serial No. S6271976XG

Notes